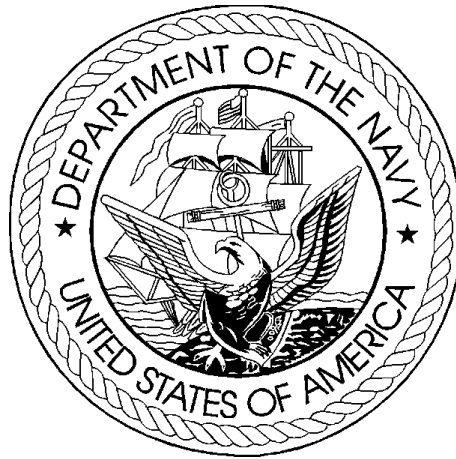


DEPARTMENT OF THE NAVY  
FISCAL YEAR (FY) 2007  
BUDGET ESTIMATES SUBMISSION



JUSTIFICATION OF ESTIMATES  
FEBRUARY 2006

WEAPONS PROCUREMENT, NAVY

UNCLASSIFIED  
DEPARTMENT OF THE NAVY  
FY 2007 PROCUREMENT PROGRAM

SUMMARY  
(\$ IN MILLIONS)

FEBRUARY 2006

APPROPRIATION -----	FY 2005 -----	FY 2006 -----	FY 2007 -----
WEAPONS PROCUREMENT, NAVY	2,191.1	2,741.2	2,555.0
TOTAL DEPARTMENT OF THE NAVY	2,191.1	2,741.2	2,555.0

UNCLASSIFIED  
DEPARTMENT OF THE NAVY  
FY 2007 PROCUREMENT PROGRAM  
SUMMARY  
(\$ IN MILLIONS)

FEBRUARY 2006

APPROPRIATION: WEAPONS PROCUREMENT, NAVY

ACTIVITY -----	FY 2005 -----	FY 2006 -----	FY 2007 -----
01. BALLISTIC MISSILES	718.2	908.8	961.1
02. OTHER MISSILES	1,037.1	1,250.3	1,096.4
03. TORPEDOES AND RELATED EQUIPMENT	191.5	202.1	234.9
04. OTHER WEAPONS	184.5	310.7	206.7
06. SPARES AND REPAIR PARTS	59.7	69.3	55.9
TOTAL WEAPONS PROCUREMENT, NAVY	2,191.1	2,741.2	2,555.0

## UNCLASSIFIED

DEPARTMENT OF THE NAVY  
FY 2007 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1507N WEAPONS PROCUREMENT, NAVY

DATE: FEBRUARY 2006

		MILLIONS OF DOLLARS							
LINE	ITEM NOMENCLATURE	IDENT	FY 2005	FY 2006	FY 2007			S	
NO		CODE	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	E
----	-----	----	-----	-----	-----	-----	-----	-----	C
BUDGET ACTIVITY 01: BALLISTIC MISSILES									
-----									
BALLISTIC MISSILES									
1	TRIDENT II	A	5	(113.4)					U
	LESS: ADVANCE PROCUREMENT (PY)			(-40.7)					U
				-----	-----	-----			
				72.7					
MODIFICATION OF MISSILES									
2	TRIDENT II MODS			642.6		905.4		957.6	U
SUPPORT EQUIPMENT AND FACILITIES									
3	MISSILE INDUSTRIAL FACILITIES	A		2.9		3.4		3.5	U
				-----	-----	-----			
TOTAL BALLISTIC MISSILES				718.2		908.8		961.1	
BUDGET ACTIVITY 02: OTHER MISSILES									
-----									
STRATEGIC MISSILES									
4	TOMAHAWK	A	298	277.2	408	372.4	350	354.6	U
TACTICAL MISSILES									
5	AMRAAM	A	37	28.8	85	73.7	150	98.7	U
6	SIDEWINDER	A	135	31.2	159	37.1	174	40.4	U
7	JSOW	B	405	141.3	420	144.2	397	125.6	U
8	STANDARD MISSILE	A	75	148.7	75	143.8	75	139.7	U
9	RAM	A	86	47.0	90	85.8	90	56.9	U
10	HELLFIRE	A	700	62.8	422	38.0			U
11	AERIAL TARGETS	A		69.1		91.5		83.3	U
12	DRONES AND DECOYS	A		16.9		17.0			U

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## UNCLASSIFIED

DEPARTMENT OF THE NAVY  
FY 2007 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1507N WEAPONS PROCUREMENT, NAVY

DATE: FEBRUARY 2006

MILLIONS OF DOLLARS									
LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 2005 QUANTITY	FY 2005 COST	FY 2006 QUANTITY	FY 2006 COST	FY 2007 QUANTITY	FY 2007 COST	S E C
13	OTHER MISSILE SUPPORT	A		10.3		10.2		9.0	U
	MODIFICATION OF MISSILES								
14	ESSM	A	71	79.5	116	98.5	108	99.6	U
15	STANDARD MISSILES MODS	A		51.3		56.6		54.6	U
	SUPPORT EQUIPMENT AND FACILITIES								
16	WEAPONS INDUSTRIAL FACILITIES	A		33.2		30.4		4.6	U
	ORDNANCE SUPPORT EQUIPMENT								
17	ORDNANCE SUPPORT EQUIPMENT	A		39.8		51.0		29.5	U
	TOTAL OTHER MISSILES			1,037.1		1,250.3		1,096.4	
BUDGET ACTIVITY 03: TORPEDOES AND RELATED EQUIPMENT									
-----									
	TORPEDOES AND RELATED EQUIP.								
18	SSTD	A				3.9		5.9	U
19	ASW TARGETS	A		26.2		24.2		25.0	U
	MOD OF TORPEDOES AND RELATED EQUIP								
20	MK-46 TORPEDO MODS	A		60.8		68.6		96.5	U
21	MK-48 TORPEDO ADCAP MODS	A		60.6		57.5		61.5	U
22	QUICKSTRIKE MINE	B		3.0		3.0		3.1	U
	SUPPORT EQUIPMENT								
23	TORPEDO SUPPORT EQUIPMENT	A		23.2		28.8		26.3	U
24	ASW RANGE SUPPORT	A		14.6		12.9		13.3	U

UNCLASSIFIED

## UNCLASSIFIED

DEPARTMENT OF THE NAVY  
FY 2007 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1507N WEAPONS PROCUREMENT, NAVY

DATE: FEBRUARY 2006

		MILLIONS OF DOLLARS						
LINE	ITEM NOMENCLATURE	IDENT	FY 2005	FY 2006	FY 2007			
NO		CODE	QUANTITY	COST	QUANTITY	COST	QUANTITY	
----	-----	----	-----	-----	-----	-----	-----	
	DESTINATION TRANSPORTATION							
25	FIRST DESTINATION TRANSPORTATION	A		3.1		3.1	3.3	
				-----		-----	-----	
	TOTAL TORPEDOES AND RELATED EQUIPMENT			191.5		202.1	234.9	
	BUDGET ACTIVITY 04: OTHER WEAPONS							
	-----							
	GUNS AND GUN MOUNTS							
26	SMALL ARMS AND WEAPONS	A		25.3		18.2	12.5	
	MODIFICATION OF GUNS AND GUN MOUNTS							
27	CIWS MODS	A		100.2		193.1	151.2	
28	COAST GUARD WEAPONS	A				5.3	5.4	
29	GUN MOUNT MODS	A		43.0		82.3	8.9	
30	PIONEER	A		12.7		4.9	7.1	
31	CRUISER MODERNIZATION WEAPONS	A				5.4	18.5	
32	AIRBORNE MINE NEUTRALIZATION SYSTEMS	A				1.5	3.2	
	OTHER							
33	CANCELLED ACCOUNT ADJUSTMENTS	A		3.2				
				-----		-----	-----	
	TOTAL OTHER WEAPONS			184.5		310.7	206.7	
	BUDGET ACTIVITY 06: SPARES AND REPAIR PARTS							
	-----							
	SPARES AND REPAIR PARTS							
34	SPARES AND REPAIR PARTS	A		59.7		69.3	55.9	
				-----		-----	-----	
	TOTAL SPARES AND REPAIR PARTS			59.7		69.3	55.9	
				-----		-----	-----	
	TOTAL WEAPONS PROCUREMENT, NAVY			2,191.1		2,741.2	2,555.0	

UNCLASSIFIED

**Fiscal Year 2007 Budget Estimates  
Budget Appendix Extract Language**

**WEAPON PROCUREMENT, NAVY**

For construction, procurement, production, modification, and modernization of missiles, torpedoes, other weapons, and related support equipment including spare parts, and accessories therefore; expansion of public and private plants, including the land necessary therefore, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, \$2,555,020,000, to remain available for obligation until September 30, 2009. (10 U.S.C. 5013, 5062; Department of Defense Appropriations Act, 2006.)



## PROGRAM

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## IMPROVEMENT

### PLAN

[About Improvement Plans](#)

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## PROGRAM ASSESSMENT

### DoD Unmanned Aircraft Systems (UAS)

The purpose of this program is to develop and produce unmanned aircraft systems that can perform DoD-required missions for which manned aircraft are not as well suited.

#### PERFORMING

##### Moderately Effective

- Unmanned aircraft systems are being delivered at the required rate and are meeting or exceeding their performance targets.
- Individual programs have procedures to improve efficiencies within the program, but the effectiveness of these procedures has not been fully demonstrated.
- DoD does not have a comprehensive plan to integrate requirements across the military Services (which manage the individual programs) and thus avoid duplication of unmanned aircraft programs.

We are taking the following actions to improve the performance of the program:

- Reviewing the requirements for unmanned aircraft systems in light of the ongoing global war on terror and the 2005 Quadriennial Defense Review of overall strategy.
- Working to improve the integration of unmanned aircraft systems requirements across the Services to prevent multiple systems with similar missions from being developed.
- [Details and Current Status of this program assessment.](#)
- [How all Federal programs are assessed.](#)
- [Learn more about DoD Unmanned Aircraft Systems \(UAS\).](#)



BUDGET ITEM JUSTIFICATION SHEET									DATE FEBRUARY 2006		
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY / BA 1 - BALLISTIC MISSILES					P-1 ITEM NOMENCLATURE 1150 - TRIDENT II MISSILE UGM-133A (D-5)						
\$ in Millions	Prior Years	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	To Complete	Total Program
QUANTITY	408	12	5								425
End Cost	\$14,949.2	\$289.7	\$122.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$479.1	\$15,840.5
Less: Prior Year Adv. Proc.	(\$1,808.1)	(\$153.3)	(\$49.8)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$479.1)	(\$2,490.3)
Full Funding TRIDENT II	\$13,141.1	\$136.4	\$72.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,350.2
Plus: Current Year Adv. Proc.	\$2,490.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,490.3
Plus: Initial Spares	\$35.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$35.4
Total New Obligational Authority	\$15,666.8	\$136.4	\$72.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,875.9
Missile Flyaway Unit Cost	\$15.6	\$24.1	\$24.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$16.0

The TRIDENT II missile is carried on OHIO CLASS Fleet Ballistic Missile Submarines, ensuring that the United States continues to maintain a highly survivable strategic deterrent well into the 21st century. Deployment of the TRIDENT II missile (1) enhances Fleet Ballistic Missile Submarine survivability by increasing Sea Launched Ballistic Missile range at full payload to exploit the total patrol area available to the TRIDENT submarine, (2) minimizes total weapon system costs by increasing Sea Launched Ballistic Missile payload to the level permitted by the size of the TRIDENT submarine launch tube, thereby allowing mission capability to be achieved with fewer submarines, and (3) balances the Triad by adding efficient hard target kill capability to the Sea Launched Ballistic Missile.

Funding in this line is required to support the procurement of TRIDENT II missiles, initial production of which commenced in FY 1987 and supported a TRIDENT II missile Initial Operational Capability (IOC) in March 1990. Beginning in FY 2001, funds were included for D-5 life extension to ensure that Strategic Weapons System life matches the extended Ohio-class hull life. In FY 2003 Congress transferred the funding for D-5 life extension and missile support costs to a separate P-1 line item (TRIDENT II Modifications).

The \$72.7 million of FY 2005 funding completes production of five (5) FY 2005-authorized missiles.

## UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)				A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1		B. UGM-133A TRIDENT II (D-5) MISSILE (31DL)		C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA		D. FEBRUARY 2006			
WEAPON SYSTEM COST ELEMENTS	Ident. Code	FY04 Unit cost	Qty	TOTAL COST	FY05 Unit cost	Qty	TOTAL COST	FY06 Unit cost	Qty	TOTAL COST	FY07 Unit cost	Qty	TOTAL COST
MISSILE END COST				1/			1/						
AIRFRAME & MOTOR FLYAWAY COST		24,140	12	289,678	24,505	5	122,524						
LESS: PRIOR YEAR ADVANCE PROCUREMENT				(153,268)			(49,795)						
TOTAL NEW OBLIGATIONAL AUTHORITY				136,410			72,729						
1/ Includes payments for FY 2004 and FY 2005 of \$9776 and \$8854 to the UK Trust Fund.													

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							DATE: FEBRUARY 2006			
B. WEAPONS PROCUREMENT NAVY BUDGET ACTIVITY 1							P-1 ITEM NOMENCLATURE: TRIDENT II MISSILE UGM-133A (D-5)			
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE
1. TRIDENT II MSL. FY2005	LOCKHEED MARTIN MISSILES AND SPACE CO. (LMMS) SUNNYVALE, CA	SS/CPIF	STRATEGIC SYSTEMS PROGRAMS (SSP)	01/05	10/06	5	24,505	YES	NO	
D. REMARKS										

## UNCLASSIFIED

[illegible]

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BUDGET ITEM JUSTIFICATION SHEET								DATE FEBRUARY 2006			
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY / BA 1 - BALLISTIC MISSILES					P-1 ITEM NOMENCLATURE 1250 - TRIDENT II MODIFICATIONS						
\$ in Millions	Prior Years	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	To Complete	Total Program
QUANTITY	0					12	24	24	24	24	108
End Cost	\$414.8	\$503.9	\$642.6	\$905.4	\$957.6	\$1,190.4	\$1,200.4	\$1,118.9	\$1,105.2	\$4,049.8	\$12,089.0
Less: Prior Year Adv. Proc.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Full Funding TRIDENT II	\$414.8	\$503.9	\$642.6	\$905.4	\$957.6	\$1,190.4	\$1,200.4	\$1,118.9	\$1,105.2	\$4,049.8	\$12,089.0
Plus: Current Year Adv. Proc.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Plus: Initial Spares	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total New Obligational Authority	\$414.8	\$503.9	\$642.6	\$905.4	\$957.6	\$1,190.4	\$1,200.4	\$1,118.9	\$1,105.2	\$4,049.8	\$12,089.0
Missile Flyaway Unit Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$31.4	\$26.4	\$26.1	\$26.2	\$27.4	\$27.1

The TRIDENT II missile is carried on OHIO CLASS Fleet Ballistic Missile Submarines, ensuring that the United States continues to maintain a highly survivable strategic deterrent well into the 21st century. Deployment of the TRIDENT II missile (1) enhances Fleet Ballistic Missile Submarine survivability by increasing Sea Launched Ballistic Missile range at full payload to exploit the total patrol area available to the TRIDENT submarine, (2) minimizes total weapon system costs by increasing Sea Launched Ballistic Missile payload to the level permitted by the size of the TRIDENT submarine launch tube, thereby allowing mission capability to be achieved with fewer submarines, and (3) adds efficient hard target kill capability to the Sea Launched Ballistic Missile.

Funding in the TRIDENT II Mods line is required to continue the procurement of TRIDENT II missiles, initial production of which commenced in FY 1987 (funded in the TRIDENT II D-5 line item) and supported a TRIDENT II missile Initial Operational Capability (IOC) in March 1990. In FY 2003 Congress transferred the funding for D-5 life extension and associated support costs to this P-1 line item.

The FY 2007 request of \$957.6 million includes \$220.0 million for program and production support costs (including flight test instrumentation and additional reentry system hardware), \$699.6 million for the D-5 life extension program, and \$38.0M for the Conventional TRIDENT Modification (CTM). The D-5 life extension funding request procures D-5 missile motors and other critical components required to support the extended 45-year SSBN hull life (for a 14 SSBN TRIDENT II program, which assumes the backfit of four C-4 boats to the D-5 configuration) and sustains the redesign of the guidance system and missile electronics, which must be replaced to support the extended service life. The CTM adapts the TRIDENT II (D5) missile system to provide offensive precision strike capability delivering conventional (non-nuclear) effects at global ranges.

These estimates support an FY 2013 D-5 life extension IOC to maintain the Nuclear Posture Review (NPR)-directed deployed force structure of 12 TRIDENT II SSBNs each fully loaded with 24 D-5 missiles.

## UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)				A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1		B. UGM-133A TRIDENT II MODIFICATIONS (31DM)		C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA		D. FEB 2006			
WEAPON SYSTEM COST ELEMENTS	Ident. Code	FY04 Unit cost	Qty	TOTAL COST	FY05 Unit cost	Qty	TOTAL COST	FY06 Unit cost	Qty	TOTAL COST	FY07 Unit cost	Qty	TOTAL COST
<b>MISSILE END COST</b>													
1 AIRFRAME & MOTOR FLYAWAY COST													
LESS: PRIOR YEAR PROCUREMENT													
2 SUBTOTAL MISSILE END COST NEW OBLIGATIONAL AUTHORITY (NOA)													
<b>TRIDENT II MODIFICATIONS</b>													
A. <u>SUPPORT COSTS</u>													
3 WARHEAD COMPONENTS													
4 FLIGHT TEST INSTRUMENTATION													
5 TOOLING, TEST/SUPPORT EQUIPMENT													
6 CONTAINERS													
7 SYSTEM INTEGRATION & PLANNING													
8 SWFLANT PRODUCTION SUPPORT													
9 SUPPORTABILITY MODS													
10 GUIDANCE PARTS PROCUREMENT													
11 SWFPAC PRODUCTION SUPPORT													
12 EOP MISSILE AND GUIDANCE COSTS													
13 PIGA													
B. <u>D5 LIFE EXTENSION</u>													
14 MISSILE HARDWARE													
15 REDESIGN													
16 PRODUCTION SUPPORT													
C. <u>CONVENTIONAL TRIDENT MODIFICATION</u>													
18 WARHEAD COMPONENTS													
19 GUIDANCE COMPONENTS													
20 MISSILE/RELEASE ASSEMBLY MODS													
SUBTOTAL MODIFICATIONS													
TOTAL NEW OBLIGATIONAL AUTHORITY													

BUDGET ITEM JUSTIFICATION SHEET									DATE FEBRUARY 2006		
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY / BA 1 - BALLISTIC MISSILES					P-1 ITEM NOMENCLATURE 1350 - MISSILE INDUSTRIAL FACILITIES						
	Prior Years	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	To Complete	Total Program
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cost (in millions)	N/A	\$1.6	\$2.9	\$3.4	\$3.5	\$3.5	\$3.5	\$3.5	\$3.6	N/A	N/A
Initial Spares	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total (in Millions)	N/A	1.6	\$2.9	\$3.4	\$3.5	\$3.5	\$3.5	\$3.5	\$3.6	N/A	N/A
Unit Cost (in Millions)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Funding for Missile Industrial Facilities provides for capital maintenance projects at Navy-owned Naval Industrial Reserve Ordnance Plants (NIROPS) at Sunnyvale and Santa Cruz, California, and Bacchus, Utah, in support of the Fleet Ballistic Missile program.

Projects planned in FY 2007 include additions and modifications to, and rehabilitation of, civil works, non-severable equipment, and real property. Among those projects are upgrades and improvements such as upgrading building electrical systems, replacing conductive floors, replacing insulation, replacing water and steam piping, paving roads and parking areas and painting buildings.

**UNCLASSIFIED**

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)				A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1			B. MISSILE INDUSTRIAL FACILITIES (31DG)		C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA		D. FEB 2006	
WEAPON SYSTEM COST ELEMENTS	Ident. Code	FY04 Unit cost	TOTAL Qty COST	FY05 Unit cost	TOTAL Qty COST	FY06 Unit cost	TOTAL Qty COST	FY07 Unit cost	TOTAL Qty COST			
CAPITAL MAINTENANCE			1,627		2,921		3,368		3,453			
TOTAL MISSILE INDUSTRIAL FACILITIES			1,627		2,921		3,368		3,453			



## BUDGET ITEM JUSTIFICATION SHEET

DATE: February 2006

P-40

## APPROPRIATION/BUDGET ACTIVITY

## P-1 ITEM NOMENCLATURE

Weapons Procurement, Navy

BA 2 - Other Missiles

210100, TOMAHAWK (MYP)

Program Element for Code B Items:

Other Related Program Elements

PE: 0204229N

	Prior Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Complete	Total Program
Quantity	4,925	A	298	408	350	421	366	377	363	0	7,508
Gross P-1 Cost (\$M)	8,751.809		286.643	385.303	367.638	420.434	418.062	435.625	442.421	0.000	11,507.935
EOQ Credit			-9.404	-12.907	-13.073	-14.616					-50.000
Net P-1 Cost (\$M)	8,751.809		277.239	372.396	354.565	405.818	418.062	435.625	442.421	0.000	11,457.935
AP/EOQ	50.000										50.000
Cost (\$M)	8,801.809		277.239	372.396	354.565	405.818	418.062	435.625	442.421	0.000	11,507.935
Initial Spares (\$M)	313.518		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	313.518
Total (\$M)	9,115.327		277.239	372.396	354.565	405.818	418.062	435.625	442.421	0.000	11,821.453
Unit Cost(\$M)	1.851		0.930	0.913	1.013	0.964	1.142	1.156	1.219	0.000	1.575

## MISSION AND DESCRIPTION:

Tomahawk provides an attack capability against targets on land (Tomahawk Land Attack Missile (TLAM)), and can be launched from both surface ships (RGM) and submarines (UGM).

Tomahawk consists of the following variants: (1) UGM -109A, Land Attack Nuclear; (2) RGM/UGM-109C, Land Attack Conventional; (4) RGM/UGM-109D, Land Attack Submunition Dispenser; (5) RGM/UGM-109E, Tactical Tomahawk. The Land Attack Surface Launch Nuclear version is no longer in Fleet use. The land-attack version in the Fleet is used for precision destruction of targets at long range.

Production of the Tactical Tomahawk missile began with Low Rate Initial Production (LRIP) buys of 25 (LRIP I) in FY2002 and 377 (167(LRIP II) and 210 (LRIP III)) in FY2003. LRIP I completed delivery in December 2004. LRIP II completed delivery in August 2005. Full rate production contract was awarded FY2004. FY2004-FY2008 unit cost based on multi-year procurement (MYP) contract. The FY04 Authorization and Appropriations Act authorized the Navy to pursue a MYP contract. FY2004 EOQ supports economic order quantity procurements for the MYP. Of the amount shown above in FY06, \$75.9M for 94 missiles was provided in Title IX.

## Characteristics and dimensions (approximate)

Weight (with booster and capsule) (UGM-109): 4,300 pounds

Weight (with booster and canister) (RGM-109): 4,000 pounds

Length (with booster): 20.5 feet

Wing Span: 8.6 feet

Cruise Speed: High Subsonic

Contractor: Raytheon Missiles Systems Company

CLASSIFICATION:  
**UNCLASSIFIED**

**WEAPONS PROCUREMENT NAVY  
MISSILE COST ANALYSIS  
EXHIBIT P-5**

DATE: February 2006

(Dollars in Thousands)

BLI - Nomenclature Popular Name: 210100, TOMAHAWK

Cost Elements	Prior Years Total Cost	FY 2005 Quantity	Quantity Unit Cost	Total Cost	FY 2006 Quantity	Quantity Unit Cost	Total Cost	FY 2007 Quantity	Quantity Unit Cost	Total Cost
HARDWARE - MISSILE										
PREVIOUS TOMAHAWK PRODUCTION	5,611,035									
REMANUFACTURE (BLOCK III)	592,217									
TACTICAL TOMAHAWK (VLS)	442,450	203	730	148,268	336	730	245,409	241	750	180,842
TACTICAL TOMAHAWK (CLS)	211,854	95	718	68,219	72	718	51,703	109	718	78,272
TACTICAL TOMAHAWK (TTL)										
TOTAL HARDWARE - MISSILE	6,857,556	298	726	216,487	408	728	297,112	350	740	259,114
HARDWARE - MISSILE - OTHER COSTS										
CCLS CAPSULE RETRO KIT							11,700			13,400
CCLS SUBMARINE CAPSULES	45,312	95	343	32,616	72	421	30,312	109	430	46,853
MK 14 CANISTERS	26,818	203	52	10,507	336	52	17,394	241	74	17,817
TOTAL HARDWARE - MISSILE - OTHER COSTS	72,130	298	145	43,123	408	473	59,406	350	504	78,070
PROCUREMENT SUPPORT - MISSILE										
PRODUCT IMPROVEMENT	378,947									
PRODUCTION ENGINEERING SUPPORT	619,082			7,265			7,903			8,318
SPECIAL TOOLING & TEST EQUIPMENT (ST & TE)	38,090									
SYSTEMS ENGINEERING	298,021			11,056			11,839			12,946
TOTAL PROCUREMENT SUPPORT - MISSILE	1,334,140			18,321			19,742			21,264
Total Flyaway Cost	8,263,826			277,931			376,260			358,448
FLEET SUPPORT-MISSILE										
DOCUMENTATION	30,245			978			949			986
SUPPORT EQUIPMENT	120,033			5,242			5,539			5,531
THEATER MISSION PLANNING CENTER	255,044									
TRAINING EQUIPMENT	82,661			2,492			2,555			2,673
TOTAL FLEET SUPPORT-MISSILE	487,983			8,712			9,043			9,190
OTHER MISSILE COSTS										
EOQ	50,000									
EOQ Credit										
TOTAL OTHER MISSILE COSTS	50,000			-9,404			-12,907			-13,073
SPARES & REPAIR PARTS										
TOMAHAWK INITIAL SPARES	313,518									
TOTAL SPARES & REPAIR PARTS	313,518									
Weapon System Cost	9,115,327	298	930	277,239	408	913	372,396	350	1,013	354,565
NON ADD: FY02 DERF TOMAHAWK REMANUFACTURE	341,222									
Total Program Cost	9,115,327			277,239			372,396			354,565

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							Weapon System TOMAHAWK		A. DATE February 2006		
B. APPROPRIATION/BUDGET ACTIVITY						C. P-1 ITEM NOMENCLATURE					SUBHEAD
Weapons Procurement, Navy			BA 2 - Other Missiles			210100, TOMAHAWK (MYP)					J2EL
Cost Element/FiscalYear	Qty	Unit Cost (\$K)	Location of PCO	RFP Issue Date	Contract Method &	Contractor and Location	Award Date	Date of First	Specs Available	Date Revisions	
FY 2003	167	1250	NAVAIR	06/2001	SS/FPI	RAYTHEON COMPANY, TUCSON, AZ	01/2003	10/2004	YES	N/A	
FY 2003	210	830	NAVAIR	11/2003	SS/FPI	RAYTHEON COMPANY, TUCSON, AZ	01/2004	09/2005	YES	N/A	
FY 2004*	322	733	NAVAIR	12/2003	SS/FP MYP	RAYTHEON COMPANY, TUCSON, AZ	08/2004	01/2006	YES	N/A	
FY 2005*	298	726	NAVAIR	12/2003	SS/FP MYP	RAYTHEON COMPANY, TUCSON, AZ	08/2004	11/2006	YES	N/A	
FY 2006*	408	728	NAVAIR	12/2003	SS/FP MYP	RAYTHEON COMPANY, TUCSON, AZ	08/2004	08/2007	YES	N/A	
FY 2007*	350	740	NAVAIR	12/2003	SS/FP MYP	RAYTHEON COMPANY, TUCSON, AZ	08/2004	08/2008	YES	N/A	

\*Based upon Tactical Tomahawk Multi-Year Procurement (MYP) in FY2004-FY2008.

Remarks:

CLASSIFICATION: **UNCLASSIFIED**

FY 2007 OSD/OMB NAVY BUDGET PRODUCTION SCHEDULE, P-21														DATE		February 2006																	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy														Weapon System TOMAHAWK				P-1 ITEM NOMENCLATURE 210100, Tomahawk (MYP)															
						Production Rate					Procurement Leadtimes																						
Item		Manufacturer's Name and Location				MSR	1-8-5		MAX		Prior to Oct 1		ALT After Oct 1		Initial Mfg PLT		Reorder Mfg PLT		Total		Unit of Measure												
Tactical Tomahawk (FY04)		Raytheon Company																															
		Tucson, AZ				28	30		42		7		9		16				32		E												
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005														FISCAL YEAR 2006												B A L
							2004			CALENDAR YEAR 2005											CALENDAR YEAR 2006												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Block IV Tomahawk (TACTOM)		2003	USN	167	0	167	1	7	3	12	0	27	17	25	25	25	25												0				
Block IV Tomahawk (TACTOM)		2003	USN	210	0	210												2	0	0	49	19	30	34	20	12	18	26		0			
Block IV Tomahawk (TACTOM)		2004	USN	322	0	322																10	13	22	26	36	36	36	36	71			
Block IV Tomahawk (TACTOM)		2005	USN	298	0	298																							298				
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007														FISCAL YEAR 2008												B A L
							2006			CALENDAR YEAR 2007											CALENDAR YEAR 2008												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
Block IV Tomahawk (TACTOM)		2004	USN	322	251	71	36	25	10																				0				
Block IV Tomahawk (TACTOM)		2005	USN	298	0	298		9	28	38	38	38	38	38	38	33													0				
Block IV Tomahawk (TACTOM)		2006	USN	408	0	408											34	34	35	35	34	34	34	34	34	34	33	33		0			
Block IV Tomahawk (TACTOM)		2007	USN	350	0	350																						29	29	292			
Remarks: *Non Add: F																																	
MSR is minimum quantity in accordance with Multi Year contract.																																	

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**CLASSIFICATION: UNCLASSIFIED**

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**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET											DATE:
P-40											FEB 2006
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy/BA 2 Other Missiles</b>						<b>AMRAAM</b>					
Program Element for Code B Items:						Other Related Program Elements					
	Prior Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	1,710	A	37	85	150	140	150	150	150	1,889	4,461
COST (\$M)	\$1,218.1		\$28.8	\$73.7	\$98.7	\$85.9	\$84.6	\$86.5	\$88.6	\$1,406.8	\$3,171.7
Initial Spares (\$M)	\$26.2		\$0.0	\$0.0	\$0.5	\$0.4	\$0.5	\$0.5	\$0.5	\$22.3	\$50.9
Total (\$M)	\$1,244.3		\$28.8	\$73.7	\$99.2	\$86.3	\$85.1	\$87.0	\$89.1	\$1,429.1	\$3,222.6
Unit Cost (\$M)	\$0.712		\$0.778	\$0.867	\$0.658	\$0.614	\$0.564	\$0.577	\$0.591	\$0.745	\$0.711
<p>MISSION AND DESCRIPTION:</p> <p>The Advanced Medium Range Air-to-Air Missile (AMRAAM) is the next generation all-weather, all-environment radar guided missile developed by the Air Force and Navy. AMRAAM is smaller, faster, lighter, and has improved capabilities against very low-altitude and high-altitude targets in an electronic countermeasure environment. AMRAAM incorporates an active radar in conjunction with an inertial reference unit and microcomputer system which makes the missile less dependent upon the aircraft fire control system. This advanced capability enables the pilot to aim and fire several missiles at multiple targets. AMRAAM upgrades have been accomplished through incremental Pre-Planned Product Improvement (P3I) programs to counter advanced electronic attack and cruise missile threats.</p> <p>FY2007 PROGRAM JUSTIFICATION:</p> <p>150 missiles will be procured in FY 2007 along with non-recurring support costs such as; government field activity technical, test, and logistics support, procurement of test articles, test equipment/test equipment upgrades to support the AIM-120D configuration, and procurement of peculiar support equipment.</p>											

Columns may not add due to rounding.

DD Form 2454, JUN 86

P-1 SHOPPING LIST

ITEM NO

5

PAGE NO

1

CLASSIFICATION:

**UNCLASSIFIED**

(Exhibit P-40 , page 1 of 5)

**WEAPONS PROCUREMENT, NAVY  
FY 2007 PRESIDENT'S BUDGET  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

Missile Nomenclature & Popular Name:

**AMRAAM**

Date: **FEB 2006**

	1,710 Prior Years <u>Total Cost</u>	<u>FY 2005</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	37 <u>Total Cost</u>	<u>FY 2006</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	85 <u>Total Cost</u>	<u>FY 2007</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	150 <u>Total Cost</u>
<u>Cost Elements</u>										
<b>Missile Hardware</b>										
All-Up-Round	777.878	37	0.434	16.043	85	0.467	39.685	150	0.460	69.000
ECO	22.204			0.323			0.755			1.408
<b>Production Support</b>										
ST&TE	49.665			1.300			14.742			10.464
Technical Support	177.442			4.697			9.064			10.062
Containers/Ancillary Eq	2.230			0.000			1.500			0.000
Test Support	70.699			3.423			4.661			4.605
Total Flyaway Cost	1,100.118	37	0.697	25.786	85	0.828	70.407	150	0.637	95.539
<b>Fleet Support</b>										
Test Equipment	58.958			0.117			0.150			0.158
Handling Equipment	0.923			0.000			0.000			0.000
Training Equipment	4.839			0.134			0.173			0.176
ILS	53.266			2.744			2.994			2.778
Total Fleet Support	117.986			2.995			3.317			3.112
<b>Weapon System Cost</b>	1,218.104	37	0.778	28.781	85	0.867	73.724	150	0.658	98.651
<b>Modifications</b>										
Initial Spares	26.189			0.000			0.000			0.547
<b>Total Program Cost</b>	1,244.293	37	0.778	28.781	85	0.867	73.724	150	0.661	99.198

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System <b>AMRAAM</b>		A. DATE <b>FEB 2006</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy / BA 2 Other Missiles</b>					C. P-1 ITEM NOMENCLATURE <b>AMRAAM</b>				SUBHEAD <b>J2GB</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST NAVY DELIVERY	TECHNICAL DATA PACKAGES AVAILABLE NOW	IF NO WHEN AVAILABLE
FY 2002	55	361	Eglin AFB, FI	10-1-01	SS/FP	Lot XVI Raytheon Missile Systems, Tucson AZ	3/31/02	11/04	YES	
FY 2003	76	447	Eglin AFB, FI	10-1-02	SS/FP	Lot XVII Raytheon Missile Systems, Tucson AZ	3/31/03	05/06	YES	
FY 2004	42	431	Eglin AFB, FI	10-1-03	SS/FP	Lot XVIII Raytheon Missile Systems, Tucson AZ	1/5/04	01/07	YES	
FY 2005	37	434	Eglin AFB, FI	10-1-04	SS/FP	Lot XIX Raytheon Missile Systems, Tucson AZ	12/22/04	05/07	YES	
FY 2006	85	467	Eglin AFB, FI	10-1-05	SS/FP	Lot XX Raytheon Missile Systems, Tucson AZ	3/31/06	02/08	YES	
FY 2007	150	460	Eglin AFB, FI	10-1-06	SS/FP	Lot XXI Raytheon Missile Systems, Tucson AZ	1/1/07	10/08	YES	
D. REMARKS										



FY 2007 BUDGET PRODUCTION SCHEDULE, P-21													DATE		FEBRUARY 2006																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Item		Manufacturer's Name and Location				MSR	1-8-5	MAX	ALT Prior to Oct 1			ALT After Oct 1			Initial Mfg PLT			Reorder Mfg PLT			Total		Unit of Measure																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Remarks:

F-35 Program Office funding with USAF R&D funds. F-18 Program Office funding with RDT&E,N funds.  
FY04 FMS includes 200 missiles procured as Direct Commercial Sales and not included in contractual delivery schedule.

DD Form 2445, JUL 87 P-1 SHOPPING LIST Exhibit P-21 Production Schedule  
 311 / 244 ITEM NO    5            PAGE   5 (Exhibit P-21, page 5 of 5)

**BUDGET ITEM JUSTIFICATION SHEET****DATE: February 2006****P-40**

APPROPRIATION/BUDGET ACTIVITY

P-1 ITEM NOMENCLATURE

**Weapons Procurement, Navy BA 2 - Other Missiles****220900, SIDEWINDER**

Program Element for Code B Items:

Other Related Program Elements

	Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program	
Quantity	492	A	135	159	174	107	120	114	122	3514	4937	
Cost (\$M)	101.4	A	31.2	37.1	40.4	39.9	39.8	38.1	41.5	949.8	1,319.3	
Initial Spares (\$M)	3.5	A	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	
Total (\$M)	104.9	A	33.1	37.1	40.4	39.9	39.8	38.1	41.5	949.8	1,324.6	
Unit Cost(\$M)	0.2		0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	

**MISSION AND DESCRIPTION:**

The AIM-9X (Sidewinder) short range air-to-air missile is a long-term evolution of the AIM-9 series of fielded missiles. The AIM-9X missile program provides a launch and leave, air combat munition that uses passive Infrared (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-To-Air Missile. Air superiority in the short-range air-to-air missile arena is essential and includes first shot, first kill opportunity against an enemy employing IR countermeasures. The AIM-9X employs several components common with the AIM-9M (fuse, rocket motor and warhead). Improved Anti-Tamper features are being incorporated to protect improvements inherent in this design.

FY 2007 Program Justification: Lot 7 FRP option will be executed in FY 07.

The total quantity of missiles produced will be a combination of All Up Rounds (AURs) and Captive Air Training Missiles (CATMs).

	AIM-9X Quantities	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
AIM-9X 220900	Navy	135	159	174	107	120	114	122
AIM-9X M09HA1	Air Force	248	196	183	116	272	307	206

**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

**February 2006**

BLI - Nomenclature Popular Name: 220900, SIDEWINDER

Cost Elements	Prior Years	FY 2005	Quantity	135	FY 2006	Quantity	159	FY 2007	Quantity	174
	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
HARDWARE - MISSILE										
ALL UP ROUND (AUR)	63.040	93	0.178	16.547	115	0.189	21.692	126	0.187	23.561
CAPTIVE AIR TRAINING MISSILE	17.495	42	0.158	6.622	44	0.167	7.351	48	0.166	7.949
ENGINEERING CHANGE ORDERS (ECO)	1.458			0.707			0.882			0.983
MISSILE CONTAINERS	1.317			0.390			0.466			0.519
PRODUCTION TECHNICAL SUPPORT	4.860			3.089			2.805			3.210
SPECIAL TOOLING & TEST EQUIPMENT (ST & TE)	0.312			0.108			0.110			0.112
TOTAL HARDWARE - MISSILE	88.482	135	0.203	27.463	159	0.209	33.306	174	0.209	36.334
Total Flyaway Cost	88.482	135	0.203	27.463	159	0.209	33.306	174	0.209	36.334
FLEET SUPPORT-MISSILE										
DATA	0.209			0.063			0.080			0.081
GOVT IN-HOUSE SYSTEM ENGR/PROGRAM MGMT	8.657			3.112			2.774			2.994
PECULIAR SUPPORT EQUIPMENT /BOX-4	1.675			0.524			0.069			0.071
TRAINING EQUIP - DATM	0.640									
TRAINING EQUIPMENT - Airborne Test Equip	1.263						0.783			0.793
TRAINING SUPPORT	0.471			0.070			0.116			0.107
TOTAL FLEET SUPPORT-MISSILE	12.915			3.769			3.822			4.046
Weapon System Cost	101.397	135	0.231	31.232	159	0.234	37.128	174	0.232	40.380
Modifications										
Initial Spares	3.500			1.828						
Total Program Cost	104.897			33.060			37.128			40.380

(Exhibit P-5, page 2 of 5)

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							Weapon System SIDEWINDER		A. DATE February 2006		
B. APPROPRIATION/BUDGET ACTIVITY						C. P-1 ITEM NOMENCLATURE					SUBHEAD
Weapons Procurement, Navy			BA 2 - Other Missiles			220900, SIDEWINDER					J2ER
Cost Element/FiscalYear	Qty	Unit Cost (M)	Location of PCO	RFP Issue	Contract Method &	Contractor and Location	Award Date	Date of First	Specs Available	Date Revisions	
FY05 AIM-9X FRP 1, Lot 5 See Note 1	135	0.203	NAVAIR	05/2004	FFP	RAYTHEON COMPANY, TUCSON, AZ	11/2004	05/2006	Yes		
FY06 AIM-9X FRP 1, Lot 6 See Note 1 and 2	159	0.209	NAVAIR	05/2005	FFP	RAYTHEON COMPANY, TUCSON, AZ	12/2005	05/2007	Yes		
FY07 AIM-9X FRP 1, Lot 7 See Note 1	174	0.209	NAVAIR	05/2006	FFP	RAYTHEON COMPANY, TUCSON, AZ	11/2006	05/2008	Yes		

Remarks:

1. Unit cost calculation assumes NAVY, AIR FORCE and FMS quantities remain constant. Unit Cost consists of AUR, CATM, and Container.
2. FY06 (Lot 6), quantities were reduced from 165 to 159 as a result of a decrease of FMS sales planned during this lot and fiscal year.

ITEM NO 6

## UNCLASSIFIED

FY 2007 PRESIDENT'S BUDGET PRODUCTION SCHEDULE, P-21														DATE		February 2006															
APPROPRIATION/BUDGET ACTIVITY														Weapon System				P-1 ITEM NOMENCLATURE													
Weapons Procurement, Navy/BA-2 Other Missiles																		AIM-9X Sidewinder													
						Production Rate			Procurement Leadtimes																						
Item	Manufacturer's Name and Location					MSR	1-8-5 ECON	2-8-5 MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																	
AIM-9X (Sidewinder) Lot 5-8*	Raytheon Systems Co.					300	600	800		1		18	19	EA																	
	Tucson, AZ																														
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005												FISCAL YEAR 2006												B A L	
						2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006													
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
AIM-9X Sidewinder (Lot 5)																															
Raytheon Systems Co.	05	N	135	0	135		A																						75		
Raytheon Systems Co.	05	AF	248	0	248		A																						143		
AIM-9X Sidewinder (Lot6)																															
Raytheon Systems Co.	06	N	159	0	159														A										159		
Raytheon Systems Co.	06	AF	196	0	196														A										196		
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007												FISCAL YEAR 2008												B A L	
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008													
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
AIM-9X Sidewinder (Lot 5)																															
Raytheon Systems Co.	05	N	135	60	75	12	9	9	12	12	12	9																	0		
Raytheon Systems Co.	05	AF	248	105	143	21	15	15	24	24	24	20																	0		
AIM-9X Sidewinder (Lot 6)																															
Raytheon Systems Co.	06	N	159	0	159								15	15	15	15	18	18	9	9	15	12	12	6					0		
Raytheon Systems Co.	06	AF	196	0	196								15	21	21	21	21	18	15	15	15	15	15	4					0		
AIM-9X Sidewinder (Lot7)																															
Raytheon Systems Co.	07	N	174	0	174		A																		15	15	15	15	15	99	
Raytheon Systems Co.	07	AF	183	0	183		A																		18	18	18	18	18	93	
Remarks: *Assumes joint Navy/Air Force production rates.																															

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DD Form 2445, JUL 87	Previous editions are obsolete	P-1 SHOPPING LIST
311 / 244	ITEM NO. 6	PAGE NO. 5
Exhibit P-21 Production Schedule		

**BUDGET ITEM JUSTIFICATION SHEET****DATE: February 2006****P-40****APPROPRIATION/BUDGET ACTIVITY****P-1 ITEM NOMENCLATURE****Weapons Procurement, Navy BA 2****223000, Joint Standoff Weapon (JSOW)**

Program Element for Code B Items:

Other Related Program Elements

**Code B- P.E. 0604727N****0604727F, 27324F**

	Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program	
Quantity	1906	B	405	420	397	421	504	521	546	4,680	9,800	
Weapon System Cost (\$M)	\$828.3		\$141.3	\$144.2	\$125.6	\$131.4	\$155.2	\$164.5	\$169.1	\$1,643.3	\$3,502.8	
Initial Spares (\$M)	\$0.8		\$0.3	\$0.4	\$0.2	\$0.2	\$0.1	\$0.1	\$0.0	\$0.0	\$2.2	
Procurement Cost (\$M)	\$829.1		\$141.6	\$144.6	\$125.8	\$131.6	\$155.3	\$164.6	\$169.1	\$1,643.3	\$3,504.9	
Unit Cost (\$M)	\$0.4		\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.4	\$0.4	

**MISSION AND DESCRIPTION:**

Joint Standoff Weapons (JSOW) is a joint USN/USAF program with the USN as the lead service. The JSOW program provides an air-to-ground glide weapon (AGM-154) capable of attacking a variety of targets during day, night, and adverse weather conditions for use against fixed area targets. The JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW Global Positioning System (GPS)/Inertial Navigation System (INS) capability will allow several target kills per aircraft sortie.

The JSOW Baseline variant (AGM-154A) has been integrated on USN (F/A-18C/D/E/F) and USAF (F-16C/D, B-2 and B-52) aircraft, with a Joint (A/F, USN) planned inventory of 3,323 units. USN will procure an inventory of 2,800 All-Up-Rounds (AURs) for integration on F/A-18 aircraft and the USAF have procured an inventory of 523 AURs for integration on F-16C/D, F-15E, B-1B, B-52, and B-2 aircraft. The JSOW BLU-108 (AGM-154B) variant provides an anti-armor/tank capability. Production of the AGM-154B variant has been deferred. The JSOW Unitary variant (AGM-154C) utilizes the common airframe of the AGM-154A and B variants and incorporates an infrared uncooled seeker with Autonomous Targeting Acquisition. The payload includes a 500 pound class Broach multi-stage warhead. AGM-154C was approved for Low Rate Initial Production on 26 June 2003. Full Rate Production of the AGM-154C began in December 2004. The Navy's planned inventory is 7,000 JSOW AGM-154C AURs.

The USAF terminated their involvement in the JSOW program in FY05. Between PB04 and PB05, the JSOW-A and JSOW-C unit cost increased as a result of significantly fewer quantities being produced in the FYDP. Additionally, below the line costs increased due to USAF withdrawal and USN requirement to fund costs that were previously shared. To offset the increased costs, the program manager has implemented a cost reduction initiative that has significantly reduced unit costs through manufacturing and supplier process efficiencies, and through design modifications aimed at reducing the cost of the airframe, guidance electronics unit and seeker beginning with the FY06 procurement. Production in the FYDP is focused on JSOW-C because of the low inventory and high demand for this weapon. JSOW-A production is temporarily deferred for two reasons: Raytheon ongoing development of an Unexploded Ordnance (UXO) solution to the BLU-97 and the department's direction to accept risk in weapon quantity for area attack munitions. The anticipated UXO solution will involve the incorporation of a BLU-111 warhead. Below the line costs that are common to the JSOW-A/C variant were previously shown in the JSOW-A line. Beginning in FY06, these costs have been shifted to the JSOW-C line. A moving/relocatable target capability is under development and planned to be incorporated in JSOW-C production units beginning in FY09.



**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

BLI - Nomenclature Popular Name: 223000, JSOW

AGM-154

Cost Elements	Prior Years Total Cost	FY 2005 Quantity	Quantity Unit Cost	405 Total Cost	FY 2006 Quantity	Quantity Unit Cost	420 Total Cost	FY 2007 Quantity	Quantity Unit Cost	397 Total Cost
<b>HARDWARE - MISSILE</b>										
ALL UP ROUND (AUR)	477.272	405	0.246	99.701	420	0.237	99.413	397	0.246	97.700
CONTRACTOR (WARRANTY / ECO / DATA)	101.633			9.675			10.542			10.313
LRIP-2 ACCELERATION	2.236			0.000			0.000			0.000
<b>TOTAL HARDWARE - MISSILE</b>	<b>581.141</b>	<b>405</b>	<b>0.270</b>	<b>109.376</b>	<b>420</b>	<b>0.262</b>	<b>109.955</b>	<b>397</b>	<b>0.272</b>	<b>108.013</b>
<b>PROCUREMENT SUPPORT - MISSILE</b>										
COMMAND & LAUNCH / ST&E / MISSION / SW	39.513			14.132			4.755			1.127
CONTAINERS	18.102			3.863			3.829			3.693
GIH PRODUCTION SUPPORT	69.052			8.881			9.729			10.100
JMPS INTEGRATION	2.687			0.000			0.000			0.000
LC GEU / CONTROL	11.056			0.000			0.000			0.000
SPECIAL TOOLING & TEST EQUIPMENT (ST & T	76.760			4.484			10.784			1.273
TELEMETRY	18.115			0.000			2.687			0.000
<b>TOTAL PROCUREMENT SUPPORT - MISSILE</b>	<b>235.285</b>			<b>31.360</b>			<b>31.784</b>			<b>16.193</b>
<b>FLEET SUPPORT-MISSILE</b>										
INTEGRATED LOGISTICS SUPPORT (ILS)	11.856			0.578			2.507			1.345
<b>TOTAL FLEET SUPPORT-MISSILE</b>	<b>11.856</b>			<b>0.578</b>			<b>2.507</b>			<b>1.345</b>
<b>Weapon System Cost</b>	<b>828.282</b>	<b>405</b>	<b>0.349</b>	<b>141.314</b>	<b>420</b>	<b>0.343</b>	<b>144.246</b>	<b>397</b>	<b>0.316</b>	<b>125.551</b>
<b>Modifications</b>										
Initial Spares	0.776			0.331			0.403			0.229
<b>Total Program Cost</b>	<b>829.058</b>			<b>141.645</b>			<b>144.649</b>			<b>125.780</b>

Remark: The FY2006 budget includes funding in the Contractor ECO line for a life of type buy of obsolete seeker detector Read Only Integrated Circuit (ROIC) components. The FY2007 Contractor ECO line includes funding for qualification/testing of an alternate seeker detector design to address the ROIC obsolescence issue.

**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

**February 2006**

BLI - Nomenclature Popular Name: 223000, JSOW

AGM-154 A

Cost Elements	Prior Years Total Cost	FY 2005 Quantity	Quantity Unit Cost	216 Total Cost	FY 2006 Quantity	Quantity Unit Cost	0 Total Cost	FY 2007 Quantity	Quantity Unit Cost	0 Total Cost
HARDWARE - MISSILE										
ALL UP ROUND (AUR)	402.931	216	0.203	43.755	0		0.000	0		0.000
CONTRACTOR (WARRANTY / ECO / DATA)	94.743			0.477			0.000			0.000
LRIP-2 ACCELERATION	2.236			0.000			0.000			0.000
TOTAL HARDWARE - MISSILE	499.910	216	0.205	44.232	0		0.000	0		0.000
PROCUREMENT SUPPORT - MISSILE										
COMMAND & LAUNCH / ST&E / MISSION / SW	38.245			6.435			0.000			0.000
CONTAINERS	17.107			1.815			0.000			0.000
GIH PRODUCTION SUPPORT	67.419			7.923			0.000			0.000
JMPS INTEGRATION	2.687			0.000			0.000			0.000
LC GEU / CONTROL	11.056			0.000			0.000			0.000
SPECIAL TOOLING & TEST EQUIPMENT (ST & T	55.760			2.029			0.000			0.000
TELEMETRY	18.115			0.000			0.000			0.000
TOTAL PROCUREMENT SUPPORT - MISSILE	210.389			18.202			0.000			0.000
FLEET SUPPORT-MISSILE										
INTEGRATED LOGISTICS SUPPORT (ILS)	11.856			0.328			0.000			0.000
TOTAL FLEET SUPPORT-MISSILE	11.856			0.328			0.000			0.000
Weapon System Cost	722.155	216	0.291	62.762	0		0.000	0		0.000
Modifications										
Initial Spares	0.776			0.331			0.000			0.000
Total Program Cost	722.931			63.093			0.000			0.000

(Exhibit P-5, page 3 of 8)

**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

**February 2006**

BLI - Nomenclature Popular Name: 223000, JSOW

AGM-154 B

Cost Elements	Prior Years	FY 2005	Quantity	0	FY 2006	Quantity	0	FY 2007	Quantity	0
	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
HARDWARE - MISSILE										
ALL UP ROUND (AUR)	14.496	0		0.000	0		0.000	0		0.000
TOTAL HARDWARE - MISSILE	14.496	0		0.000	0		0.000	0		0.000
PROCUREMENT SUPPORT - MISSILE										
COMMAND & LAUNCH / ST&E / MISSION / SW	0.644			0.000			0.000			0.000
CONTAINERS	0.117			0.000			0.000			0.000
GIH PRODUCTION SUPPORT	0.151			0.000			0.000			0.000
SPECIAL TOOLING & TEST EQUIPMENT (ST & T	3.900			0.000			0.000			0.000
TOTAL PROCUREMENT SUPPORT - MISSILE	4.812			0.000			0.000			0.000
Weapon System Cost	19.308	0		0.000	0		0.000	0		0.000
Modifications										
Initial Spares	0.000			0.000			0.000			0.000
Total Program Cost	19.308			0.000			0.000			0.000

**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

BLI - Nomenclature Popular Name: 223000, JSOW

AGM-154 C

Cost Elements	Prior Years Total Cost	FY 2005 Quantity	Quantity Unit Cost	189 Total Cost	FY 2006 Quantity	Quantity Unit Cost	420 Total Cost	FY 2007 Quantity	Quantity Unit Cost	397 Total Cost
HARDWARE - MISSILE										
ALL UP ROUND (AUR)	59.845	189	0.296	55.946	420	0.237	99.413	397	0.246	97.700
CONTRACTOR (WARRANTY / ECO / DATA)	6.890			9.198			10.542			10.313
TOTAL HARDWARE - MISSILE	66.735	189	0.345	65.144	420	0.262	109.955	397	0.272	108.013
PROCUREMENT SUPPORT - MISSILE										
COMMAND & LAUNCH / ST&E / MISSION / SW	0.624			7.697			4.755			1.127
CONTAINERS	0.878			2.048			3.829			3.693
GIH PRODUCTION SUPPORT	1.482			0.958			9.729			10.100
SPECIAL TOOLING & TEST EQUIPMENT (ST & T	17.100			2.455			10.784			1.273
TELEMETRY	0.000			0.000			2.687			0.000
TOTAL PROCUREMENT SUPPORT - MISSILE	20.084			13.158			31.784			16.193
FLEET SUPPORT-MISSILE										
INTEGRATED LOGISTICS SUPPORT (ILS)	0.000			0.250			2.507			1.345
TOTAL FLEET SUPPORT-MISSILE	0.000			0.250			2.507			1.345
Weapon System Cost	86.819	189	0.416	78.552	420	0.343	144.246	397	0.316	125.551
Modifications										
Initial Spares	0.000			0.000			0.403			0.229
Total Program Cost	86.819			78.552			144.649			125.780

Remark: The FY2006 budget includes funding in the Contractor ECO line for a life of type buy of obsolete seeker detector Read Only Integrated Circuit (ROIC) components. The FY2007 Contractor ECO line includes funding for qualification/testing of an alternate seeker detector design to address the ROIC obsolescence issue.

CLASSIFICATION:

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							Weapon System JSOW		A. DATE February 2006			
B. APPROPRIATION/BUDGET ACTIVITY						C. P-1 ITEM NOMENCLATURE					SUBHEAD	
Weapons Procurement, Navy						BA 2 - Other Missiles					223000, JSOW	J2JS
Cost Element/FiscalYear	Qty	Unit Cost (\$M)	Location of PCO	RFP Issue Date	Contract Method & Type	Contractor and Location	Award Date	Date of First Delivery	Specs Available Now	Date Revisions Available		
FY 2005 AGM-154-A	216	0.203	NAVAIR	10/2004	SS-FFP	RAYTHEON COMPANY, TUCSON, AZ	11/2004	01/2007	Yes	N/A		
FY 2005 AGM-154-C	189	0.296	NAVAIR	10/2004	SS-FFP	RAYTHEON COMPANY, TUCSON, AZ	12/2004	03/2006	Yes	N/A		
FY 2006 AGM-154-C	420	0.237	NAVAIR	02/2005	SS-FFP	RAYTHEON COMPANY, TUCSON, AZ	01/2006	03/2007	Yes	N/A		
FY 2007 AGM-154-C	397	0.246	NAVAIR	02/2006	SS-FFP	RAYTHEON COMPANY, TUCSON, AZ	12/2006	03/2008	Yes	N/A		

Remarks: Unit Cost is All-Up Round Hardware.

Classification: UNCLASSIFIED

FY 07 PRESIDENT'S BUDGET PRODUCTION SCHEDULE, P-21										DATE		February 2006																									
APPROPRIATION/BUDGET ACTIVITY										Weapon System		P-1 ITEM NOMENCLATURE																									
Weapons Procurement, Navy/BA-2										JSOW		BLI 223000 JOINT STANDOFF WEAPONS (JSOW)																									
						Production Rate			Procurement Leadtimes																												
Item	Manufacturer's Name and Location					MSR	All variants		ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																							
Joint Standoff Weapons (JSOW)	Raytheon Company					240	720		1416		3	15	15	18	E																						
	Tucson, AZ																																				
AGM-154A, AGM-154C																																					
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005															FISCAL YEAR 2006															B A L	
						2004			CALENDAR YEAR 2005												CALENDAR YEAR 2006																
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P								
JSOW Baseline/Raytheon Systems	2003	USN	174	98	76	14	15	15	16	16																							0				
JSOW Baseline/Raytheon Systems	2003	USN	316	0	316		15	16	24	19	29	14	0	45	22	22	12	12	12	12	12	38											0				
JSOW Baseline/Raytheon Systems	2003	AF	22	10	12	6		6																									0				
JSOW-C/Raytheon Systems	2003	USN	42	2	40	4	6	8	10	1	0	11																					0				
JSOW Baseline/Raytheon Systems	2004	USN	231	0	231																												75				
JSOW Baseline/Raytheon Systems	2004	AF	307	0	307							26	14	14	31	31	31	32	32	32	32	32											0				
JSOW-C/Raytheon Systems	2004	USN	97	0	97							8	16	8	8	8	8	8	8	8	9												0				
JSOW Baseline/Raytheon Systems	2005	USN	216	0	216		A																										216				
JSOW-C/Raytheon Systems	2005	USN	189	0	189			A														13	17	16	16	17	17	17					76				
JSOW-C/Raytheon Systems	2006	USN	420	0	420																A												420				
																																	0				
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007															FISCAL YEAR 2008													B A L			
						2006			CALENDAR YEAR 2007												CALENDAR YEAR 2008																
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P								
JSOW Baseline/Raytheon Systems	2004	USN	231	156	75	25	25	25																									0				
JSOW Baseline/Raytheon Systems	2005	USN	216	0	216				31	33	43	39	35	23	12																		0				
JSOW-C/Raytheon Systems	2005	USN	189	113	76	18	18	18	12	10																							0				
JSOW-C/Raytheon Systems	2006	USN	420	0	420						2	6	10	20	34	48	50	50	50	50	50	50											0				
JSOW-C/Raytheon Systems	2007	USN	397	0	397			A														33	33	33	33	33	33	33					166				
Remarks:																							* Maximum rate assumes a 3-8-7 shift with existing tooling. Rates were adjusted to reflect JSOW-C only production in the FYDP.														

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY - BA-2 Other Missiles</b>							P-1 ITEM NOMENCLATURE <b>STANDARD MISSILE (SM-2 MR/ER/SM-6 ERAM) BLI:223400</b>					
Program Element for Code B Items: 0604366N - SM-6 ERAM							Other Related Program Elements					
	FY2004 and Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	10,820	A/B		75	75	75	75	90	100	105	1,472	12,887
COST (\$M)	\$7,640.1	A/B		148.7	143.8	139.7	143.1	244.1	281.6	298.1	5,285.5	14,324.7
Initial Spares (\$M)	\$223.9	A		\$20.9	\$14.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	259.3
<p>(U) PROGRAM DESCRIPTION/JUSTIFICATION:</p> <p>(U) The STANDARD Missile SM-2 Medium Range (MR) and Extended Range (ER) missiles are solid-propellant, tail-controlled surface-to-air missiles which are the main air defense battery for AEGIS guided missile cruisers and destroyers. The SM-2 Block IIIB, SM-2 Block IV and earlier variants are currently deployed. The STANDARD Missile-6 (SM-6) Extended Range Active Missile (ERAM) is being developed to provide defense for Sea Shield and enable Sea Basing and Sea Striking. SM-6 Low Rate Initial Production (LRIP) will begin in FY09.</p> <p>(U) Continually being upgraded to preserve battle group effectiveness against evolving cruise missile and anti-ship missile threats, SM-2 has improvements which will be procured for AEGIS cruisers and destroyers equipped with the MK41 Vertical Launch System (VLS). The SM-2 Block IIIB configuration, currently in production, improves the Block IIIA baseline through the Missile Homing Improvement Program (MHIP) to address a specific type of deployed threat. SM-2 Block IV, with a new separable booster, evolved from the Block IIIA baseline missile to provide greater kinematic capability and dramatic increases in performance.</p>												



CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System							DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-2 Other Missiles						ID Code A	P-1 ITEM NOMENCLATURE/SUBHEAD STANDARD MISSILE (SM-2 MR/ER/SM-6 ERAM) BLI: 223400 SBHD: A2FE								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			2004 & Prior Years				FY 2005			FY 2006			FY 2007		
			Total Qty	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
FE001	<u>Missile Hardware</u> SM-2 All Up Round (AUR) Missile AEGIS SM-2 Blk IIIB AEGIS SM-2 Blk IV AEGIS SM-2 Blk IVA  TYPE I Canisters - SM-2 Blk IIIB (MK-13)  <u>Total Missile Hardware</u>	A N/A N/A	633 160 22				75 - -	987.80 - -	74,085 - -	75 - -	993.55 - -	74,516 - -	75 - -	1,014.40 - -	76,080 - -
							75	35.91	2,693	75	37.64	2,823	75	38.43	2,882
									76,778			77,339			78,962
FE830	<u>Procurement Support *</u> Production Engineering/Support								35,350			37,005			31,468
FE850	Comp Improvement								7,369			4,002			4,318
FE950	Tools and Test Equipment								17,745			10,175			10,334
FE957	Containers								278			353			329
	<u>Total Procurement Support</u>								60,742			51,535			46,449
FE970	<u>Fleet Support *</u> Install/Checkout/Special Handling Equip/Training Mat								9,165			12,928			12,483
FE980	ILS/Fleet Documentation								1,968			1,954			1,778
	<u>Total Fleet Support</u>								11,133			14,882			14,261
	  <														

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System		A. DATE <b>February 2006</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b> <b>BA-2 Other Missiles</b>					C. P-1 ITEM NOMENCLATURE <b>STANDARD MISSILE</b> <b>BLI: 223400</b>				SUBHEAD <b>A2FE</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>FE001/ALL UP ROUND (AUR) MISSILE</u>										
FY05 SM-2 BLK IIIB AEGIS AUR	75	987.80	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	03/05	09/07	YES	
FY06 SM-2 BLK IIIB AEGIS AUR	75	993.55	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	02/06	03/08	YES	
FY07 SM-2 BLK IIIB AEGIS AUR	75	1,014.40	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	01/07	01/09	YES	
FY05 Type I Canister (MK-13)	75	35.91	NAVSEA		FP/Option	UDLP - Minneapolis, MN	07/05	11/06	YES	
FY06 Type I Canister (MK-13)	75	37.64	NAVSEA		FP/Option	UDLP - Minneapolis, MN	01/06	01/07	YES	
FY07 Type I Canister (MK-13)	75	38.43	NAVSEA		FP/Option	UDLP - Minneapolis, MN	01/07	01/08	YES	
D. REMARKS										

DD Form 2446-1, JUL 87

P-1 SHOPPING LIST

Classification:

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FY 2006/07 BUDGET PRODUCTION SCHEDULE, P-21							DATE <b>February 2006</b>						
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY/BA-2</b>						Weapon System		P-1 ITEM NOMENCLATURE <b>Standard Missile/2234</b>					
		Production Rate			Procurement Leadtimes								
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure			
SM-2 BLK IIIB AUR Missile*	Raytheon, Tucson, AZ	156	175	500	-	3	24	24	27	E			
SM-6 ERAM	Raytheon, Tucson, AZ	TBD	TBD	TBD	2	1	24	24	25	E			
TYPE I & TYPE II Canisters**	UDLP, Minneapolis, MN	120	330	480	3	3	18	18	21	E			

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2006												FISCAL YEAR 2007												B A L			
						CY 2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007															
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
						SM-2/Raytheon	1999	N	114	82	32		1					6	6	6	6	6	1										
SM-2/Raytheon	2003	N	93	72	21			21																									
SM-2/Raytheon	2003	F	58	44	14			14																									
SM-2/Raytheon	2004	N	75	0	75						19			18			18			20													
SM-2/Raytheon	2004	N	209	0	209						50			54			55			50													
SM-2/Raytheon	2005	N	75	0	75																								38	37			
SM-2/Raytheon	2005	F	163	0	163																									17	17		

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2008												FISCAL YEAR 2009												B A L			
						CY 2007			CALENDAR YEAR 2008									CALENDAR YEAR 2009															
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
						SM-2/Raytheon	2005	N	75	38	37			37																			
SM-2/Raytheon	2005	F	163	146	17			17																									
SM-2/Raytheon	2006	N	75	0	75						19			19			19			18													
SM-2/Raytheon	2006	F	285	0	285						72			73			73			67													
SM-2/Raytheon	2007	N	75	0	75																												
SM-2/Raytheon	2007	F	30	0	30																												

Remarks: \* SM-2 Blk IIIB production rates apply to both STANDARD Missile BLI 223400 and STANDARD Missile Modifications BLI 235600.  
 \*\* Canister Minimum Sustaining Rate is met with In-House All Up Round (AURs) and Direct Commercial Sale (DCS) quantities.

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CLASSIFICATION:

FY 2006/07 BUDGET PRODUCTION SCHEDULE, P-21							DATE February 2006																	
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY							Weapon System				P-1 ITEM NOMENCLATURE Standard Missile/2234													
		Production Rate			Procurement Leadtimes																			
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure										
SM-2 BLK IIIB AUR Missile*	Raytheon, Tucson, AZ					156	175	500	-	3	24	24	27	E										
SM-6 ERAM	Raytheon, Tucson, AZ					TBD	TBD	TBD	2	1	24	24	25	E										
TYPE I Canisters **	UDLP, Minneapolis, MN					120	330	480	3	3	18	18	21	EA										

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2010												FISCAL YEAR 2011												B A L			
						CY 2009			CALENDAR YEAR 2010												CALENDAR YEAR 2011												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
SM-2/Raytheon	2007	N	75	0	75	6	6	7																									
SM-2/Raytheon	2007	F	30	24	6	2	2	2																									
SM-2/Raytheon																																	
SM-2/Raytheon																																	
SM-6/Raytheon																																	
SM-2/Raytheon																																	
SM-2/Raytheon																																	
SM-6/Raytheon																																	

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2012												FISCAL YEAR 2013												B A L			
						CY 2011			CALENDAR YEAR 2012												CALENDAR YEAR 2013												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
SM-6/Raytheon																																	
SM-2/Raytheon																																	
SM-2/Raytheon																																	
SM-6/Raytheon																																	
SM-2/Raytheon																																	
SM-2/Raytheon																																	

Remarks:

\* SM-2 Blk IIIB production rates apply to both STANDARD Missile BLI 223400 and STANDARD Missile Modifications BLI 235600.

\*\* Canister Minimum Sustaining Rate is met with In-House All Up Round (AURs) and Direct Commercial Sale (DCS) quantities.

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-2: Other Missiles				P-1 ITEM NOMENCLATURE ROLLING AIRFRAME MISSILE (RAM) BLI 224200								
Program Element for Code B Items: 0604756N				Other Related Program Elements								
	Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY2008	FY2009	FY2010	FY2011	To Complete	Total Program
QUANTITY	521	A		86	90	90	90	90	90	90	924	2071
COST (\$M)	286.8			47.0	85.8	56.9	84.5	79.7	81.8	93.3	487.5	1,303.3
Initial Spares (\$M)	11.7			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7
Vendor Direct Spares	7.3			2.8	3.5	0.0	0.0	0.0	0.0	0.0	cont	13.6
<p><b>ITEM DESCRIPTION/JUSTIFICATION:</b>  Rolling Airframe Missile (RAM) is a high fire-power, low cost, lightweight ship self-defense system to engage anti-ship missiles. Block 1 adds the capability of Infrared all-the-way guidance while maintaining the original dual-mode passive Radio Frequency/Infrared (RF/IR) guidance (Block 0). The RAM missile is fired from a RAM Guided Missile Launching System (MK-49), which holds 21 RAM rounds. Approval for full rate Block 1 production, Milestone III was granted on 20 January 2000.</p> <p>FY05 funds procured 86 Block 1 Missiles. Four additional GMRPs were procured with other program funding. Total FY05 Procurement was 90 GMRPs (MSR).  FY06 funds will procure 90 Block 1 Missiles and 184 Block 1 ORDALTs.  FY07 funds will procure 90 Block 1 Missiles.</p> <p><b>COOPERATIVE AGREEMENTS:</b>  RAM is a cooperative project with the Federal Republic of Germany. The RAM Production MOU, approved and signed by the U.S. and Germany (GE) on 3 August 1987, specifies production procedures for the Guided Missile Round Pack and co-production of the Guided Missile Launching System. Missile limited production contracts were awarded to U.S. (General Dynamics/Air Defense Systems Division) and German (RAM System GmbH) sources in 1989. As a result of the reduced U.S. missile quantities and a desire to maintain production capabilities in both countries, an arrangement between the U.S. and German producers, for single source co-production of the German full-rate production quantities, was approved by both governments in November 1992 and this arrangement continues for U.S. rate production. In August 1992, the acquisition of General Dynamics by Hughes Aircraft Company was approved, making Hughes Missile Systems Co. the U.S. prime contractor. In January 1998, Raytheon acquired Hughes Missile Systems Co., making Raytheon the U.S. prime contractor. The U.S. and Federal Republic of Germany signed a new Block 1 Production MOA on 18 December 2001 to cooperatively produce Block 1 missiles, launchers and ORDALTs.</p>												

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WEAPONS SYSTEM COST ANALYSIS P-5				WEAPON SYSTEM: ROLLING AIRFRAME MISSILE (RAM)						DATE: FEBRUARY 2006			
APPROPRIATION/BUDGET ACTIVITY: WEAPONS PROCUREMENT, NAVY BA-2: OTHER MISSILES				ID CODE	P-1 ITEM NOMENCLATURE/SUBHEAD ROLLING AIRFRAME MISSILE (RAM) BLI - 224200						SUBHEAD A2EF		
COST CODES	ELEMENT OF COST	IDENT CODES	TOTAL COSTS IN THOUSANDS OF DOLLARS										
			FY 2004 AND PRIOR	FY 2005			FY 2006			FY 2007			
				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
	<u>Missile Hardware</u>												
EF001	BLOCK 1 & G&CA	A	182,387	86	392.81	33,782	90	389.63	35,067	90	398.59	35,873	
EF001	GMRP ORDALTS	A	25,981				184	189.65	34,896				
EF850	COMPONENT IMPR	A	15,965			2,195			1,622			6,744	
EF002	PROPULSION	A	5,295	86	12.44	1,070	90	12.73	1,146	90	13.02	1,172	
EF005	ORDNANCE PACK	A	14,321	86	29.52	2,539	90	30.18	2,716	90	30.87	2,778	
EF006	WARHEAD	A	1,771	61	9.95	607	90	10.18	916	90	10.41	937	
EF004	SAFE & ARM DEV	A	368	61	3.20	195	90	3.27	294	90	3.35	302	
EF950	TOOL & TEST EQUIP	A	1,205										
EF010	TELEMETER	A	3,481	25	22.64	566							
	Total Hardware		250,774			40,954			76,657			47,806	
	<u>Procurement Support</u>												
EF830	CONTRACTOR EN	A	9,706			409			1,769			1,798	
EF830	GOVT INHOUSE EN	A	14,069			2,407			2,577			2,621	
EF860	PRODUCT ACCEPT	A	2,079			188			250			255	
	Total Procurement Support		25,854			3,004			4,596			4,674	
	MISSILE Flyaway Cost			86	511.14	43,958	90	515.08	46,357	90	541.72	48,755	
	GMRP ORDALT Flyaway Cost						184	189.65	34,896				
	<u>Fleet Support</u>												
EF974	ILS	A							531			544	
EF957	CONTAINER	A	895				90	2.79	251				
EF007	CANISTER	A	9,328	66	45.42	2,998	90	41.82	3,764	90	42.78	3,850	
	Total Fleet Support		10,223			2,998			4,546			4,394	
	Weapon System Cost		286,851			46,956			85,799			56,874	
	Modifications												
	Initial Spares		11,681										
	Vendor Direct Spares		7,321			2,774			3,506				
	Total Program Cost		305,853			49,730			89,305			56,874	

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Note: FY2007 Component Improvement includes requirements for dome retrofits which are excluded from the Missile Flyaway cost.  
FY05 Block 1 Missile Procurement total was 90 GMRPs (four GMRPs procured with other program funding).

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>						<b>Weapon System</b>		<b>A. DATE</b> FEBRUARY 2006		
<b>B. APPROPRIATION/BUDGET ACTIVITY</b> Weapons Procurement, Navy BA2: Other Missiles					<b>C. P-1 ITEM NOMENCLATURE</b> ROLLING AIRFRAME MISSILE (RAM) BLI 224200				<b>SUBHEAD</b> A2EF	
<b>Cost Element/ FISCAL YEAR</b>	<b>QUANTITY</b>	<b>UNIT COST (000)</b>	<b>LOCATION OF PCO</b>	<b>RFP ISSUE DATE</b>	<b>CONTRACT METHOD &amp; TYPE</b>	<b>CONTRACTOR AND LOCATION</b>	<b>AWARD DATE</b>	<b>DATE OF FIRST DELIVERY</b>	<b>SPECS AVAILABLE NOW</b>	<b>DATE REVISIONS AVAILABLE</b>
<b>EF001</b> GUIDANCE & CONTROL ASSEMBLY FY 2005 BLOCK 1 MISSILE	86	392.8	NAVSEA	5/04	SS/FP	RAYTHEON, TUCSON,AZ	03/05	09/07	YES	
FY 2006 BLOCK 1 MISSILE	90	389.6	NAVSEA	5/05	SS/FP	RAYTHEON, TUCSON,AZ	02/06	11/07	YES	
FY 2007 BLOCK 1 MISSILE	90	398.6	NAVSEA	5/06	SS/FP	RAYTHEON, TUCSON,AZ	11/06	11/08	YES	
<b>EF001</b> GMRP ORDALTS FY 2006	184	189.7	NAVSEA	5/05	SS/FP	RAYTHEON, TUCSON,AZ	11/05	04/07	YES	
<b>EF002</b> PROPULSION ROCKET MOTOR MK112/1 ARMING & FIRING DEVICE MK298/1 FY 2005	86	12.4	NAVSEA	5/04	SS/FP	RAYTHEON, TUCSON,AZ	03/05	09/07	YES	
FY 2006	90	12.7	NAVSEA	5/05	SS/FP	RAYTHEON, TUCSON,AZ	02/06	11/07	YES	
FY 2007	90	13.0	NAVSEA	5/06	SS/FP	RAYTHEON, TUCSON,AZ	11/06	11/08	YES	
<b>EF005</b> ORDNANCE PACKAGE TARGET DETECT MK20 FY 2005	86	29.5	NAVSEA	5/04	SS/FP	RAYTHEON, TUCSON,AZ	03/05	09/07	YES	
FY 2006	90	30.2	NAVSEA	5/05	SS/FP	RAYTHEON, TUCSON,AZ	02/06	11/07	YES	
FY 2007	90	30.9	NAVSEA	5/06	SS/FP	RAYTHEON, TUCSON,AZ	11/06	11/08	YES	
<b>D. REMARKS</b>										

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					<b>Weapon System</b>			<b>A. DATE</b> FEBRUARY 2006			
<b>B. APPROPRIATION/BUDGET ACTIVITY</b> Weapons Procurement, Navy BA2: Other Missiles					<b>C. P-1 ITEM NOMENCLATURE</b> ROLLING AIRFRAME MISSILE (RAM) BLI 224200					<b>SUBHEAD</b> A2EF	
<b>Cost Element/ FISCAL YEAR</b>	<b>QUANTITY</b>	<b>UNIT COST (000)</b>	<b>LOCATION OF PCO</b>	<b>RFP ISSUE DATE</b>	<b>CONTRACT METHOD &amp; TYPE</b>	<b>CONTRACTOR AND LOCATION</b>	<b>AWARD DATE</b>	<b>DATE OF FIRST DELIVERY</b>	<b>SPECS AVAILABLE NOW</b>	<b>DATE REVISIONS AVAILABLE</b>	
<b>EF006</b> WARHEAD WDU 17/8 FY 2005 FY 2006 FY 2007	61 90 90	10.0 10.2 10.4	NAVSEA NAVSEA NAVSEA	5/04 5/05 5/06	SS/FP SS/FP SS/FP	RAYTHEON, TUCSON,AZ RAYTHEON, TUCSON,AZ RAYTHEON, TUCSON,AZ	03/05 02/06 11/06	09/07 11/07 11/08	YES YES YES		
<b>EF004</b> SAFE & ARMS MK 13/2 FY 2005 FY 2006 FY 2007	61 90 90	3.2 3.3 3.4	NAVSEA NAVSEA NAVSEA	5/04 5/05 5/06	SS/FP SS/FP SS/FP	RAYTHEON, TUCSON,AZ RAYTHEON, TUCSON,AZ RAYTHEON, TUCSON,AZ	03/05 02/06 11/06	11/06 11/07 11/08	YES YES YES		
<b>EF010</b> TELEMETER FY 2005	25	22.6	NAVSEA	5/04	SS/FP	RAYTHEON, TUCSON,AZ	03/05	09/07	YES		
<b>EF957</b> CONTAINERS FY 2006	90	2.8	NAVSEA	5/04	C/FP	COMPETITIVE	02/06	02/07	YES		
<b>EF007</b> CANISTER FY 2005 FY 2006 FY 2007	66 90 90	45.4 41.8 42.8	NAVSEA NAVSEA NAVSEA	5/04 5/05 5/06	SS/FP SS/FP SS/FP	RAYTHEON, TUCSON,AZ RAYTHEON, TUCSON,AZ RAYTHEON, TUCSON,AZ	03/05 02/06 11/06	09/07 11/07 11/08	YES YES YES		
<b>D. REMARKS</b>											



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DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST  
 311 / 244 ITEM NO 9 PAGE NO 5 Exhibit P-21 Production Schedule

**BUDGET ITEM JUSTIFICATION SHEET****DATE: February 2006****P-40**

APPROPRIATION/BUDGET ACTIVITY

P-1 ITEM NOMENCLATURE

**Weapons Procurement, Navy BA 2 - Other Missiles****225400, HELLFIRE**

Program Element for Code B Items:

Other Related Program Elements

	Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program	
Quantity	3685	A	700	422	0	0	0	0	0	0	4807	
Cost (\$M)	199.8	A	62.8	38.0	0.0	0.0	0.0	0.0	0.0	0.0	300.6	
Initial Spares (\$M)	0.9	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	
Total (\$M)	200.7	A	62.8	38.0	0.0	0.0	0.0	0.0	0.0	0.0	301.5	
Unit Cost(\$M)	0.1		0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	

**MISSION AND DESCRIPTION:**

Hellfire (AGM-114) is a laser guided missile primarily employed against point targets by rotary wing (RW) aircraft. There are two types of warheads: shaped charge (AGM-114 B/K) and blast fragmentation (AGM-114 M/N). Blast fragmentation variants are capable against soft targets, especially in a Military Operation Urban Terrain (MOUT) environment, making it the RW "weapon of choice" in the Global War On Terrorism (GWOT). The current expenditure rate of the blast fragmentation variant is five times that of the shaped charge variant. Total expenditures of both variants in support of GWOT exceeds 900 missiles. The AGM-114N, a Thermobaric blast fragmentation warhead, adds a unique capability against confined compartmented spaces, a typical target type observed in current combat operations. Because of the H-60 Armed Helo Requirement, this weapon is essential to Sea Shield and Sea Strike.

Reprogramming of FY05 \$20.0M was received Feb 2005. Supplemental of FY05 \$43.0M was received late May 2005. FY06 funding of \$38M was received in Title IX for procurement of 422 (buy to budget) Hellfire (AGM-114).

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**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

BLI - Nomenclature Popular Name: 225400, HELLFIRE

Cost Elements	Prior Years Total Cost	FY 2005 Quantity	Quantity Unit Cost	700 Total Cost	FY 2006 Quantity	Quantity Unit Cost	422 Total Cost	FY 2007 Quantity	Quantity Unit Cost	Total Cost
HARDWARE - MISSILE										
ALL UP ROUND (AUR)	152.061	700	0.086	60.319	422	0.087	36.917			
TOTAL HARDWARE - MISSILE	152.061	700	0.086	60.319	422	0.087	36.917			
PROCUREMENT SUPPORT - MISSILE										
CONTRACTOR SUPPORT				0.090			0.083			
GOVT IN-HOUSE SYSTEM ENGINEERING	39.253			1.890			0.500			
TOTAL PROCUREMENT SUPPORT - MISSILE	39.253			1.980			0.583			
Total Flyaway Cost	191.314	700	0.089	62.299	422	0.089	37.500			
FLEET SUPPORT-MISSILE										
INTEGRATED LOGISTICS SUPPORT (ILS)	6.226			0.501			0.500			
TOTAL FLEET SUPPORT-MISSILE	6.226			0.501			0.500			
OTHER MISSILE COSTS										
CONTAINERS	2.264									
TOTAL OTHER MISSILE COSTS	2.264									
Weapon System Cost	199.804	700	0.090	62.800	422	0.090	38.000			
Modifications										
Initial Spares	0.914									
Total Program Cost	200.718			62.800			38.000			

(Exhibit P-5, page 2 of 5)

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							Weapon System HELLFIRE		A. DATE February 2006		
B. APPROPRIATION/BUDGET ACTIVITY						C. P-1 ITEM NOMENCLATURE					SUBHEAD
Weapons Procurement, Navy			BA 2 - Other Missiles			225400, HELLFIRE					J2F6
Cost Element/FiscalYear	Qty	Unit Cost (000)	Location of PCO	RFP Issue Date	Contract Method & Type	Contractor and Location	Award Date	Date of First Delivery	Specs Available Now	Date Revisions Available	
FY 2005	700	86	Huntsville, AL	03/2005	MIPR/FFP	Lockheed Martin, Orlando FL	12/2005	01/2006	YES		
FY 2006	422	87	Huntsville, AL	02/2006	MIPR/FFP	Lockheed Martin, Orlando FL	05/2006	05/2008	YES		

## Remarks:

Reprogramming of FY05 \$20.0M was received Feb 2005. Supplemental of FY05 \$43.0M was received late May 2005.  
FY06 funding of \$38.0M was received in Title IX Supplemental for procurement of 422 (buy to budget) Hellfire (AGM-114).

Delivery of 72 FY 2005 missiles will be in 2nd Quarter FY 2006 as a result of available assets from a previous Army contract.

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FY07 BUDGET PRODUCTION SCHEDULE, P-21										DATE		February 2006																																
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY / BA-2										Weapon System		P-1 ITEM NOMENCLATURE 225400 HELLFIRE																																
										Production Rate			Procurement Leadtimes																															
Item	Manufacturer's Name and Location					MSR	ECON	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																														
HELLFIRE II (AGM-114)	LOCKHEED MARTIN (HSLLC)					120	175	400	4	8	24	24	32	EA																														
ITEM / MANUFACTURER															F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005										FISCAL YEAR 2006										B A L				
															2004			CALENDAR YEAR 2005										CALENDAR YEAR 2006																
															O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
HELLFIRE (AGM-114) AURs - LOCKHEED MARTIN															05	N	700	0	700											A	64	8								628				
HELLFIRE (AGM-114) AURs - LOCKHEED MARTIN															06	N	422	0	422															A						422				
ITEM / MANUFACTURER															F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007										FISCAL YEAR 2008										B A L				
															2006			CALENDAR YEAR 2007										CALENDAR YEAR 2008																
															O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
HELLFIRE (AGM-114) AURs - LOCKHEED MARTIN															05	N	700	72	628												100		150		105		200		73			0		
HELLFIRE (AGM-114) AURs - LOCKHEED MARTIN															06	N	422	0	422																	80	80	80	80	80	22			
Remarks:																																												

Previous editions are obsolete

CLASSIFICATION: **UNCLASSIFIED**

[illegible]

Previous editions are obsolete

**BUDGET ITEM JUSTIFICATION SHEET****P-40****DATE:****February 2006**

APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE				
<b>Weapons Procurement, Navy</b>							<b>228000, AERIAL TARGETS</b>				
<b>BA 2 - Other Missiles</b>							Other Related Program Elements				
Program Element for Code B Items:							<b>N/A</b>				
<b>0604258N,0605130D,0604366N,0204162N</b>											
	Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
Quantity											
Cost (\$M)	2,966.8	A	69.1	91.5	83.3	79.8	81.7	83.6	85.5	Cont.	Cont.
Initial Spares (\$M)	57.6		0.5	6.0	5.5	1.0	1.0	0.7	0.4	Cont.	Cont.
Total (\$M)	3,024.4		69.6	97.5	88.8	80.8	82.7	84.2	85.9	Cont.	Cont.
Unit Cost(\$M)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**MISSION AND DESCRIPTION:**

The Aerial Targets Program provides powered targets, towed targets and necessary Target Auxiliary and Augmentation Systems (TA/AS) equipment for fleet training, and weapons systems test and evaluation. This program is comprised of a series of continuing target production programs.

**JUSTIFICATION OF BUDGET YEAR REQUIREMENTS:**

In Fiscal Year 2007, major efforts include the continued procurement of Sub-Sonic Aerial Targets (SSAT), Supersonic Sea Skimming Targets (SSST) and TDU-32 Tow Targets. Continued TA/AS procurements include target command/control equipment, scoring equipment, location and identification equipment, navigation equipment, electronic countermeasures equipment, active emitter augmentation equipment and target control systems. The aerial targets and necessary TA/AS equipment provided from this program support Navy air-to-air and surface-to-air training and weapons systems development test/operationing testing.

FY 2007 Long Lead Components funds are for procurement of long lead items in support of the FY2008 Aerial Target procurement, specifically, D6AC steel for production of GQM-163A, ducted rocket housings.

**WEAPONS PROCUREMENT NAVY  
MISSILE COST ANALYSIS  
EXHIBIT P-5**  
(Dollars in Millions)

February 2006

BLI - Nomenclature Popular Name: 228000, AERIAL TARGETS

Cost Elements	Prior Years	FY 2005	Quantity		FY 2006	Quantity		FY 2007	Quantity	
	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
EM020 Anti-Air Warfare Target	175.470									
EM030 SUBSONIC AERIAL TARGET	523.453	60		30.236	60		40.756	60		34.744
EM200 OTHER TARGETS	188.383	6		21.228	19		35.397	17		32.500
EM300 TARGET AUX/AUG SYS	261.983			17.661			15.386			15.755
VARIOUS	1,817.484									
Gross Cost	2,966.773			69.125			91.539			82.999
LONG LEAD COMPONENTS (CREDIT)*										
Net Cost	2,966.773			69.125			91.539			82.999
LONG LEAD COMPONENTS*										0.300
Weapon System Cost	2,966.773	66		69.125	79		91.539	77		83.299
SPARES										
EM030 SUBSONIC AERIAL TARGET	0.455						3.177			3.100
EM200 OTHER TARGETS	0.703			0.193			1.637			1.518
EM300 TARGET AUX/AUG SYS	2.542			0.352			1.161			0.888
VARIOUS	53.947									
TOTAL SPARES	57.647			0.545			5.975			5.506
TOTAL PROGRAM	3,024.420	66		69.670	79		97.514	77		88.805

(1) Initial spares requirements are displayed for information purposes only and are budgeted in Budget Activity 6, Spare and Repair Parts.

(2) Not all quantities are displayed here because multiple types of targets are included in the line. Target quantities are identified on the detailed P-5 for "Other Targets".



**WEAPONS PROCUREMENT NAVY  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

**FEBRUARY 2006**

BLI - Nomenclature Popular Name: 228000, AERIAL TARGETS

EM030

Cost Elements	FY 2005			FY 2006			FY 2007		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
HARDWARE-OTHER-NON MISSILE									
Install/Mission Kits			2.609			4.135			3.846
Target	60	0.341	20.431	60	0.387	23.220	60	0.406	24.373
TOTAL HARDWARE-OTHER-NON MISSILE	60	0.384	23.040	60	0.456	27.355	60	0.470	28.219
PROCUREMENT SUPPORT-OTHER (NON-MISSILE)									
DOCUMENTATION			0.112			0.112			0.112
GOVERNMENT IN-HOUSE ENGINEERING			4.217			2.317			2.364
GOVERNMENT TEST PROGRAM									
TOTAL PROCUREMENT SUPPORT-OTHER (NON-MISSILE)			4.329			2.429			2.476
Total Flyaway Cost	60	0.456	27.369	60	0.496	29.784	60	0.512	30.695
FLEET SUPPORT COST-OTHER (NON-MISSILE)									
Ground Equipment			1.610			7.977			2.845
Install & Checkout			0.772			2.500			0.700
Integrated Logistics Support (ILS)			0.485			0.495			0.504
Training Devices									
TOTAL FLEET SUPPORT COST-OTHER (NON-MISSILE)			2.867			10.972			4.049
Weapon System Cost	60	0.504	30.236	60	0.679	40.756	60	0.579	34.744
Modifications									
Initial Spares						3.177			3.100
Total Program Cost			30.236			43.933			37.844

\* FY05 Unit Cost represents last year of BQM-74E production.

**WEAPONS PROCUREMENT NAVY  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

**FEBRUARY 2006**

BLI - Nomenclature Popular Name: 228000, AERIAL TARGETS EM200

Cost Elements	FY 2005			FY 2006			FY 2007		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
HARDWARE-OTHER-NON MISSILE									
Install/Mission Kits	7	0.017	0.119	19	0.021	0.406	17	0.022	0.382
Supersonic Sea Skimming Target	6	1.866	11.198	19	1.701	32.331	17	1.707	29.023
Tow Targets				325	0.002	0.520	309	0.002	0.671
TOTAL HARDWARE-OTHER-NON MISSILE			11.317			33.257			30.076
PROCUREMENT SUPPORT-OTHER (NON-MISSILE)									
CONTRACTOR ENGINEERING			2.877						
GOVERNMENT IN-HOUSE ENGINEERING			5.099			1.254			1.574
GOVERNMENT TEST PROGRAM									
PRODUCT IMPROVEMENT						0.561			0.566
SPECIAL TOOLING & TEST EQUIPMENT			1.828						
TOTAL PROCUREMENT SUPPORT-OTHER (NON-MISSILE)			9.804			1.815			2.140
Total Flyaway Cost			21.121			35.072			32.216
FLEET SUPPORT COST-OTHER (NON-MISSILE)									
Ground Equipment			0.107			0.325			0.284
Install & Checkout									
Integrated Logistics Support (ILS)									
Training Devices									
TOTAL FLEET SUPPORT COST-OTHER (NON-MISSILE)			0.107			0.325			0.284
LONG LEAD COMPONENTS CREDIT									
LONG LEAD COMPONENTS									0.300
Weapon System Cost			21.228			35.397			32.800
Modifications									
Initial Spares			0.193			1.637			1.518
Total Program Cost			21.421			37.034			34.318

**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

**FEBRUARY 2006**

BLI - Nomenclature Popular Name: 228000, AERIAL TARGETS    EM300

Cost Elements	FY 2005			FY 2006			FY 2007		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
HARDWARE-OTHER-NON MISSILE									
Augmentation/Navigation Equipm			0.085			0.107			0.109
Command/Control Equipment			1.782			2.282			1.650
ECM/Emitter Equipment			5.758			3.540			4.881
Install/Mission Kits			0.405			0.600			0.400
Location/ID Equipment						1.000			1.200
Scoring Equipment			2.400			0.924			1.750
TOTAL HARDWARE-OTHER-NON MISSILE			10.430			8.453			9.990
PROCUREMENT SUPPORT-OTHER (NON-MISSILE)									
DOCUMENTATION			0.100			0.100			0.100
GOVERNMENT IN-HOUSE ENGINEERING			4.633			4.674			4.241
GOVERNMENT TEST PROGRAM			0.062			0.063			0.064
PRODUCT IMPROVEMENT			1.600			1.248			0.500
TOTAL PROCUREMENT SUPPORT-OTHER (NON-MISSILE)			6.395			6.085			4.905
Total Flyaway Cost			16.825			14.538			14.895
FLEET SUPPORT COST-OTHER (NON-MISSILE)									
Ground Equipment									
Integrated Logistics Support (ILS)			0.636			0.648			0.660
Training Devices			0.200			0.200			0.200
TOTAL FLEET SUPPORT COST-OTHER (NON-MISSILE)			0.836			0.848			0.860
Weapon System Cost			17.661			15.386			15.755
Modifications									
Initial Spares			0.352			1.161			0.888
Total Program Cost			18.013			16.547			16.643

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							Weapon System AERIAL TARGETS		A. DATE February 2006		
B. APPROPRIATION/BUDGET ACTIVITY						C. P-1 ITEM NOMENCLATURE					SUBHEAD
Weapons Procurement, Navy						228000, AERIAL TARGETS					J2EM
Cost Element/FiscalYear	Qty	Unit Cost (000)	Location of PCO	RFP Issue Date	Contract Method &	Contractor and Location	Award Date	Date of First	Specs Available	Date Revisions	
Subsonic Aerial Target FY 2005	60	341	NAVAIR	N/A	SS-FFP	Northrop-Grumman, Rancho Bernardo, CA	03/2005	03/2006	Yes	N/A	
Subsonic Aerial Target FY 2006	60	387	NAVAIR	N/A	SS-FFP	Northrop-Grumman, Rancho Bernardo, CA	01/2006	02/2007	Yes	N/A	
Subsonic Aerial Target FY 2007	60	406	NAVAIR	N/A	SS-FFP	Northrop-Grumman, Rancho Bernardo, CA	01/2007	02/2008	Yes	N/A	
Supersonic Sea Skimming Target											
SSST/FY04-GQM-163A*	4	1921	NAVAIR	N/A	SS-CPIF	Orbital Sciences, Chandler, AZ	03/2005	04/2006	Yes	N/A	
SSST/FY05-GQM-163A*	6	1866	NAVAIR	N/A	SS-CPIF	Orbital Sciences, Chandler, AZ	03/2005	07/2006	Yes	N/A	
SSST/FY06-GQM-163A	19	1701	NAVAIR	N/A	SS-CPIF	Orbital Sciences, Chandler, AZ	12/2005	01/2007	Yes	N/A	
SSST/FY07-GQM-163A	17	1707	NAVAIR	N/A	SS-FFP	Orbital Sciences, Chandler, AZ	12/2006	01/2008	Yes	N/A	

Remarks: \* FY04 and FY05 funding combined into single procurement to achieve efficiencies  
GQM LRIP II Awarded March 2005 with FY04 funding (4units) and FY05 funding (6 units)

(page 6 of 9)

CLASSIFICATION:  
**UNCLASSIFIED**

CLASSIFICATION:

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FY 07 PRESIDENT'S BUDGET PRODUCTION SCHEDULE, P-21										DATE <b>February 2006</b>																																																																																																																																																																																																																																																										
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2 - OTHER MISSILES</b>						Weapon System		P-1 ITEM NOMENCLATURE <b>228000 AERIAL TARGETS</b>																																																																																																																																																																																																																																																												
						Production Rate		Procurement Leadtimes																																																																																																																																																																																																																																																												
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																																																																																																																																																																																																																																																						
Subsonic Aerial Target	Northrop-Grumman, Rancho Bernardo, CA					2-5	20	40-45		4	13	13	17	E																																																																																																																																																																																																																																																						
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ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007															FISCAL YEAR 2008												B A L																																																																																																																																																																																																																																			
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CLASSIFICATION:  
**UNCLASSIFIED**

FY 07 PRESIDENT'S BUDGET PRODUCTION SCHEDULE, P-21											DATE <b>February 2006</b>																								
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY</b>											Weapon System				P-1 ITEM NOMENCLATURE <b>228000 AERIAL TARGETS</b>																				
						Production Rate			Procurement Leadtimes																										
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1			ALT After Oct 1			Initial Mfg PLT			Reorder Mfg PLT			Total	Unit of Measure													
Subsonic Aerial Target	Northrop-Grumman, Rancho Bernardo, CA					2-5	20	40-45				4			13			13			17	E													
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2009												FISCAL YEAR 2010												B A L
											2008						CALENDAR YEAR 2009						CALENDAR YEAR 2010												
											O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
Subsonic Aerial Tgt./NORTHROP-GRU						07	N	60	40	20	5	5	5	5																				0	
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2011												FISCAL YEAR 2012												B A L
											2010						CALENDAR YEAR 2011						CALENDAR YEAR 2012												
											O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L

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DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST  
 311 / 244 ITEM NO:11 PAGE NO: 9 Exhibit P-21 Production Schedule

<b>BUDGET ITEM JUSTIFICATION SHEET</b>											<b>DATE:</b>	
<b>P-40</b>											<b>February 2006</b>	
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy</b>							<b>BA 2 - Other Missiles</b>					
Program Element for Code B Items:							Other Related Program Elements					
<b>N/A</b>							<b>N/A</b>					
	Prior Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program	
Quantity												
Cost (\$M)	\$301.7		\$16.9	\$17.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$335.6	

**MISSION AND DESCRIPTION:**

Funding for Drones and Decoys from FY 1986 through FY 1993 was used for continued procurements of ADM-141 Tactical Air Launched Decoy (TALD) units which are non-powered, glide trajectory driven vehicles. The ADM-141 TALD is an expendable of similar size to a 500 pound general purpose bomb and is carried similarly. After launched from strike aircraft, the ADM-141 TALD uses radar signature augmentation and preprogrammed flight profiles to simulate manned aircraft. Its mission is to deceive and saturate hostile radar controlled air defenses, thus enhancing strike aircraft survivability. Currently, the F/A-1 is fully qualified to deploy the ADM-141 TALD in both land based and CV operations.

A Congressional add of \$16.9M in FY 2005 is to fund upgrades and conversion of Tactical Air Launch Decoys (TALD) into Improved Tactical Air Launch Decoys (ITALD).

The FY 2006 Congressional add of \$17M is to fund procurement of upgraded Improved Tactical Air Launch Decoys (ITALD).



**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

**February 2006**

BLI - Nomenclature Popular Name: 228500, DRONES AND DECOYS, DJ010

Cost Elements	Prior Years	FY 2005	Quantity		FY 2006	Quantity		FY 2007	Quantity	
	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
HARDWARE-OTHER-NON MISSILE										
CONTAINERS	1.180									
ITALD	84.951				80	0.160	12.780			
TOTAL HARDWARE-OTHER-NON MISSILE	86.131				80	0.160	12.780			
PROCUREMENT SUPPORT-OTHER (NON-MISSILE)										
CONTRACTOR ENGINEERING	0.812									
DOCUMENTATION	0.466									
GOVERNMENT IN-HOUSE ENGINEERING	12.224			2.921			2.500			
GOVERNMENT TEST PROGRAM	3.633						0.770			
PRODUCT IMPROVEMENT	12.693			14.000						
SPECIAL TOOLING & TEST EQUIPMENT	0.260						0.950			
TOTAL PROCUREMENT SUPPORT-OTHER (NON-MISSILE)	30.088			16.921			4.220			
FLEET SUPPORT COST-OTHER (NON-MISSILE)										
Documentation	0.199									
Integrated Logistics Support (ILS)	0.784									
Training Devices	1.549									
TOTAL FLEET SUPPORT COST-OTHER (NON-MISSILE)	2.532									
VARIOUS 1/	182.967									
Total Program Cost	301.718			16.921			17.000			

**WEAPONS PROCUREMENT NAVY**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
(Dollars in Millions)

**February 2006**

BLI - Nomenclature Popular Name: 228500, DRONES AND DECOYS, DJ010

Cost Elements	FY 2008			FY 2009			FY 2010			FY 2011			To Complete	
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Costs	Total Cost
														0
HARDWARE-OTHER-NON MISSILE														
CONTAINERS													0	1.180
ITALD													0	97.731
TOTAL HARDWARE-OTHER-NON MISSILE													0	98.911
PROCUREMENT SUPPORT-OTHER (NON-MISSILE)														
CONTRACTOR ENGINEERING													0	0.812
DOCUMENTATION													0	0.466
GOVERNMENT IN-HOUSE ENGINEERING													0	17.645
GOVERNMENT TEST PROGRAM													0	4.403
PRODUCT IMPROVEMENT													0	26.693
SPECIAL TOOLING & TEST EQUIPMENT													0	1.210
TOTAL PROCUREMENT SUPPORT-OTHER (NON-MISSILE)													0	51.229
FLEET SUPPORT COST-OTHER (NON-MISSILE)														
Documentation													0	0.199
Integrated Logistics Support (ILS)													0	0.784
Training Devices													0	1.549
TOTAL FLEET SUPPORT COST-OTHER (NON-MISSILE)													0	2.532
VARIOUS 1/													0	182.967
Total Program Cost													0	335.639

CLASSIFICATION:

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							Weapon System DRONES AND DECOYS		A. DATE February 2006			
B. APPROPRIATION/BUDGET ACTIVITY						C. P-1 ITEM NOMENCLATURE					SUBHEAD	
Weapons Procurement, Navy						BA 2 - Other Missiles					228500, DRONES AND DECOYS	J2DJ
Cost Element/FiscalYear	Qty	Unit Cost (000)	Location of PCO	RFP Issue Date	Contract Method & Type	Contractor and Location	Award Date	Date of First Delivery	Specs Available Now	Date Revisions Available		
ADM-141C/FY04	70	169	NAVAIR	N/A	SS/FP	Israeli Military Industries, Ramat Hasharon, IS	08/2004	12/2005	Yes	N/A		
ADM-141C/FY05	21	280	NAVAIR	N/A	SS/FP	Israeli Military Industries, Ramat Hasharon, IS	03/2006	07/2007	Yes	N/A		
ADM-141C/FY06	80	160	NAVAIR	N/A	SS/FP	Israeli Military Industries, Ramat Hasharon, IS	10/2007	11/2008	Yes	N/A		

Remarks:

\*FY05 - Procurement of 21 ITALD Test Vehicles.

(page 4 of 6)

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<b>FY 07 PRESIDENT'S BUDGET PRODUCTION SCHEDULE, P-21</b>							DATE February 2006												
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2 Other Missiles</b>							Weapon System			P-1 ITEM NOMENCLATURE <b>228500 DRONES AND DECOYS</b>									
							Production Rate			Procurement Leadtimes									
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure					
ADM-141C/IMI	IMI, Ramat Hasharon, IS (ITALD)					2	10	20		7	16	16	23	E					

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005												FISCAL YEAR 2006												B A L
						2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
ADM-141C/IMI	04	N	70	0	70																							0		
ADM-141C/IMI	05	N	21	0	21																							21		

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007												FISCAL YEAR 2008												B A L
						2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
ADM-141C/IMI	05	N	21	0	21																							0		
ADM-141C/IMI	06	N	80	0	80																							80		

Remarks:

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST  
 311 / 244 ITEM NO. 12 Exhibit P-21 Production Schedule

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>				P-1 ITEM NOMENCLATURE <b>Other Missile Support BLI: 229000</b>								
Program Element for Code B Items:				Other Related Program Elements								
	FY 2004 and Prior	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011		To Complete	Total Program
QUANTITY	0		0	0	0	0	0	0	0		0	0
COST (\$M)	\$91.8		\$10.3	\$10.2	\$9.0	\$9.2	\$9.5	\$9.7	\$9.9		CONT	\$159.5
Initial Spares (\$M)	\$4.5		\$0.8	\$0.7	\$0.9	\$0.6	\$0.3	\$0.4	\$0.5		CONT	\$8.7
<p>The MK-41 Vertical Launching System (VLS) is a surface combatant missile launching system, designed to store, select and launch various STANDARD Missile configurations, TOMAHAWK, Tactical TOMAHAWK, EVOLVED SEASPARROW (ESSM) and Vertical Launch ASROC (VLA) missiles. The MK-41 VLS significantly improves missile capacity, flexibility, multi-mission capability, reaction time and rate of fire and is designed to be adaptable to present and future weapon systems. Current configurations are: two 61 cell launchers, forward and aft, for 22 TICONDEROGA (CG 47) Class Cruisers beginning with CG-52; one 61 cell aft and one 29 cell launcher forward for 28 ARLEIGH BURKE (DDG 51) Class Destroyers; and one 64 cell launcher aft and one 32 cell launcher forward for 34 DDG 51 FLT IIA ships.</p> <p>WPN funds ILS support for MK-41 VLS canisters and canister support equipment. WPN is required for Engineering Change Proposal (ECP) development, procurement, installation, production support, technical documentation, canister and gas management hardware. Additionally, funding is required for training in support of new missile variants (ESSM, and Tactical TOMAHAWK), providing MK-41 VLS unique equipment to the weapon facilities, and providing ILS for various canisters and gas management configurations.</p>												

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WEAPONS SYSTEM COST ANALYSIS P-5							Weapon System							DATE: FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2							ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD  Other Missile Support(A2FD) BLI: 229000							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			FY 2004 and Prior	FY 2005			FY 2006			FY 2007					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
FD005	TYPE I CANISTERS		9,766												
FD006	TYPE II CANISTERS		14,338												
FD009	CANISTER EQUIPMENT		13,595			3,294			3,346			2,978			
FD970	ILS SUPPORT		52,349			6,991			6,854			6,012			
FD980	INITIAL TRAINING SUPPORT		1,720												

CLASSIFICATION: **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2006	
<b>APPROPRIATION/BUDGET ACTIVITY</b> Weapons Procurement, Navy BA-2: Other Missiles							<b>P-1 ITEM NOMENCLATURE</b>  Evolved SEASPARROW Missile (ESSM) BLI 230700					
<b>Program Element for Code B Items:</b>							<b>Other Related Program Elements</b>					
	FY 2004 and Prior	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011		To Complete	Total Program
<b>QUANTITY</b>	150		71	116	108	108	108	21			<u>1/</u>	682
<b>COST (\$M)</b>	260.4	A	79.5	98.5	99.6	102.3	105.4	34.8	15.4		15.7	811.6
<b>Vendor Direct Spares (\$M)</b>	4.0		0.6	0.9							CONT	5.5
<b>ITEM DESCRIPTION/JUSTIFICATION:</b>  The Evolved SEASPARROW Missile (ESSM) Program is an international cooperative effort to design, develop, test, and produce a new and improved version of the SPARROW missile (RIM-7P) with the kinematic performance to defeat current and projected threats that possess low altitude, high velocity and maneuver characteristics beyond the engagement capabilities of the RIM-7P. The ESSM will provide an evolved kinematically improved aft-end missile section for mating, as an all up round, with the modified RIM-7P forebody guidance and warhead section. The ESSM improvement will provide the capability to counter maneuvering anti-ship missiles, expand battle space, and increase system firepower. The ESSM is designed for "quad pack" use in the MK41 Vertical Launching System.  ESSM is a cooperative effort among ten NATO SEASPARROW nations (Australia, Canada, Denmark, Germany, Greece, Netherlands, Norway, Spain, Turkey, and the U.S.). An addendum to the NATO SEASPARROW Surface Missile System Memorandum of Understanding (MOU), covering the Engineering and Manufacturing Development (EMD) phase of the ESSM was signed in June 1995. The MOU for the cooperative production of ESSM was signed 27 December 1997 with a U.S. production intent of 2076 missiles. Authority to enter into Low Rate Initial Production (LRIP) for 207 missiles was granted 07 March 2001. Approval for Full Rate Production was given on 12 January 2004.  The FY 07 request will support a contract award of 108 missiles plus the U.S. share of support as defined in the MOU. Additionally, the U.S. is required to pay its share of non-recurring investment for performance characterization studies.  <u>1/</u> "To complete" funding is required to fund MOU commitment.												



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WEAPONS SYSTEM COST ANALYSIS P-5							Weapon System Evolved SEASPARROW Missile (ESSM)						DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-2: Other Missiles							ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD ESSM - 230700						SUBHEAD A2ES		
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			FY 2004 and Prior	FY 2005			FY 2006			FY 2007						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
ES001	<u>Missile Hardware</u>															
	MK 41/AEGIS All-Up-Round	A	106,077	53	791	41,900	62	691	42,858	82	709	58,118				
	MK 29 All-Up-Round		12,824	18	680	12,234	54	582	31,411	26	598	15,542				
	Warhead Compatible Telemeter (WCT)		3,696	10	85	845	6	80	477	2	91	182				
	Fuze ECP Backfit		4,700													
	Shipping Containers		155	18	12	207	54	8	432	26	8	208				
	Radome Life of Type buy		3,779													
	HC-434 Propellant Binder (SEASPARROW)		600													
	Rocket motors (SEASPARROW)		6,396													
	MK 25 Quadpack Canisters	A	10,082	14	334	4,676	16	324	5,184	21	317	6,657				
	Total Hardware		148,309			59,862			80,362			80,707				
ES830	<u>Procurement Support</u>															
	Tooling and Test Equipment		21,704			538										
	Peformance Characterization		15,795			5,000			4,400			4,729				
	Production Engineering		74,533			14,140			13,756			14,135				
	Total Procurement Support		112,032			19,678			18,156			18,864				
	Total Flyaway Cost		260,341			79,540			98,518			99,571				
	Weapon System Cost		260,341			79,540			98,518			99,571				
			260,341			79,540			98,518			99,571				

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System ESSM		A. DATE February 2006			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-2: Other Missiles					C. P-1 ITEM NOMENCLATURE ESSM 230700				SUBHEAD A2ES	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>FISCAL YEAR - 2005</b>										
MK 41/AEGIS All-Up-Round	53	791	NAVSEA	Jun 2004	SS/FFP	Raytheon Co., Tucson AZ	Dec 04	Nov 06	Yes	Mar 00
MK 29 All-Up-Round	18	680	NAVSEA	Jun 2004	SS/FFP	Raytheon Co., Tucson AZ	Dec 04	Nov 06	Yes	Mar 00
WCT	10	85	NAVSEA	Jun 2004	SS/FFP	Raytheon Co., Tucson AZ	Dec 04	Nov 06	Yes	Mar 00
Shipping Container	18	12	NAVSEA	Jun 2004	SS/FFP	Raytheon Co., Tucson AZ	Dec 04	Nov 06	Yes	Mar 00
MK 25 Canister	14	334	NAVSEA	Oct 2004	SS/FFP	United Defense, Minneapolis, MN	Jun 05	Jul 06	Yes	
<b>FISCAL YEAR - 2006</b>										
MK 41/AEGIS All-Up-Round	62	691	NAVSEA	Jun 2004	SS/FFP Option	Raytheon Co., Tucson AZ	Dec 05	Nov 07	Yes	Mar 00
MK 29 All-Up-Round	54	582	NAVSEA	Jun 2004	SS/FFP Option	Raytheon Co., Tucson AZ	Dec 05	Nov 07	Yes	Mar 00
WCT	6	80	NAVSEA	Jun 2004	SS/FFP Option	Raytheon Co., Tucson AZ	Dec 05	Nov 07	Yes	Mar 00
Shipping Container	54	8	NAVSEA	Jun 2004	SS/FFP Option	Raytheon Co., Tucson AZ	Dec 05	Nov 07	Yes	Mar 00
MK 25 Canister	16	324	NAVSEA	Oct 2005	SS/FFP	United Defense, Minneapolis, MN	Jun 06	Jul 07	Yes	
<b>FISCAL YEAR - 2007</b>										
MK 41/AEGIS All-Up-Round	82	709	NAVSEA	Oct 2006	SS/FFP	Raytheon Co., Tucson AZ	Nov 06	Nov 08	Yes	Mar 00
MK 29 All-Up-Round	26	598	NAVSEA	Oct 2006	SS/FFP	Raytheon Co., Tucson AZ	Nov 06	Nov 08	Yes	Mar 00
WCT	2	91	NAVSEA	Oct 2006	SS/FFP	Raytheon Co., Tucson AZ	Nov 06	Nov 08	Yes	Mar 00
Shipping Container	26	8	NAVSEA	Oct 2006	SS/FFP	Raytheon Co., Tucson AZ	Nov 06	Nov 08	Yes	Mar 00
MK 25 Canister	21	317	NAVSEA	Oct 2006	SS/FFP	United Defense, Minneapolis, MN	Jun 07	Jul 08	Yes	
D. REMARKS FY 2006 contract award in December 2005 limited to maximum authorized under Continuing Resolution Authority, a total of 71 missiles. Remaining missiles to be awarded upon enactment of the FY 2006 Defense Authorization/Appropriations bills and receipt of balance of funds										

**CLASSIFICATION: UNCLASSIFIED**

FY 2004/05 BUDGET PRODUCTION SCHEDULE, P-21							DATE		February 2006																							
APPROPRIATION/BUDGET ACTIVITY							Weapon System				P-1 ITEM NOMENCLATURE																					
Weapons Procurement, Navy/BA-(2) Other Missiles							ESSM				ESSM 230700 A2ES																					
		Production Rate			Procurement Leadtimes																											
Item	Manufacturer's Name and Location		MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																					
EVOLVED SEASPARROW MISSILE	Raytheon Co, Tucson AZ		120	300	576	12	2	24	24	38	E																					
MK 25 CANISTER	United Defense, Minneapolis		120	330	480		6	24	15	21	E																					
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2004												FISCAL YEAR 2005												B A L	
							2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
ESSM/Raytheon		2004	N	82	0	82		LLM					A																	82		
MK 25 Canister/United Defense		2004	N	18	0	18						A													4			4		10		
ESSM/Raytheon		2005	N	71	0	71														LLM				A						71		
MK 25 Canister/United Defense		2005	N	14	0	14																				A				14		
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2006												FISCAL YEAR 2007												B A L	
							2005			CALENDAR YEAR 2006									CALENDAR YEAR 2007													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
ESSM/Raytheon		2004	N	82	0	82										10	20	19	33												0	
MK 25 Canister/United Defense		2004	N	18	0	10	2		4		4																			0		
ESSM/Raytheon		2005	N	71	0	71														6	6		6	6	6	6	6	6	6	5		
MK 25 Canister/United Defense		2005	N	14	0	14													3	3		3		3		2				0		
ESSM/Raytheon		2006	N	116	0	116			A																					116		
MK 25 Canister/United Defense		2006	N	16	0	16									A													4	12			
ESSM/Raytheon		2007	N	108	0	108													A										108			
MK 25 Canister/United Defense		2007	N	21	0	21																				A			21			
Remarks:																																

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2 Other Missiles</b>						P-1 ITEM NOMENCLATURE <b>STANDARD MISSILE MODIFICATION BLI:235600 SBHD:A2FK</b>						
Program Element for Code B Items:						Other Related Program Elements						
	FY2004 and Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	694	A		79	80	89	80	70	70	70	Continuing	Continuing
COST (\$M)	\$381.6	A		\$51.3	\$56.6	\$54.6	\$56.1	\$50.4	\$51.5	\$52.6	Continuing	Continuing
Initial Spares (\$M)												\$0.0
<p>PROGRAM DESCRIPTION/JUSTIFICATION:</p> <p>The STANDARD Missile Modification Program modifies SM-2 Block II and III missiles into SM-2 Block IIIB missiles and modifies Block IV missiles. The program makes improvements in the operational readiness and electronic countermeasures performance of the missiles. The FY 2006 program includes a Congressional add to upgrade additional rocket motors. These modifications are "turnkey" and do not involve separate install funding.</p>												

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WEAPONS SYSTEM COST ANALYSIS P-5							Weapon System						DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-2 Other Missiles							ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD  STANDARD MISSILE MODIFICATION    BLI: 235600    SBHD: A2FK								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			2004 & Prior Years				FY 2005			FY 2006			FY 2007			
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
FK007	SM-2 Block IIIB Modification *						79	649.25	51,291	80	660.33	52,826	79	679.04	53,644	
	SM-2 Block IV Modification *												10	100.00	1,000	
	MK 104 Rocket Motor Upgrade									64	58.59	3,750				
* Procurement Support and Fleet Support costs are contained on the STANDARD Missile budget exhibit (BLI 223400) to pay for efforts that support both newly produced All Up Round (AUR) missiles in BLI 223400 and modified missiles in BLI 235600. These support costs are non-severable by STANDARD Missile variant.																
			381,654						51,291			56,576			54,644	

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System		A. DATE February 2006			
<b>B. APPROPRIATION/BUDGET ACTIVITY</b> Weapons Procurement, Navy BA-2 Other Missiles					<b>C. P-1 ITEM NOMENCLATURE</b> STANDARD MISSILE MODIFICATION BLI: 235600				<b>SUBHEAD</b> A2FK	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>FK007/SM-2 BLOCK IIIB MODIFICATION</u>										
FY05 SM-2 Blk IIIB Mod	79	649.25	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	03/05	12/06	YES	
FY06 SM-2 Blk IIIB Mod	80	660.33	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	02/06	03/08	YES	
FY07 SM-2 Blk IIIB Mod	79	679.04	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	01/07	01/09	YES	
FY07 SM-2 Blk IV Mod	10	100.00	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	01/07	01/09	YES	
FY06 MK 104 Rocket Motor Upgrade	64	58.59	NAVSEA		SS/FFP/IF	Raytheon - Tucson, AZ	04/06	03/08	YES	
D. REMARKS										

CLASSIFICATION:

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FY 2007 BUDGET PRODUCTION SCHEDULE, P-21							DATE <b>February 2006</b>																								
APPROPRIATION/BUDGET ACTIVITY						Weapon System				P-1 ITEM NOMENCLATURE																					
<b>WEAPONS PROCUREMENT NAVY/BA-2 Other Missiles</b>										<b>STANDARD MISSILE MODIFICATION BLI: 235600</b>																					
						Production Rate			Procurement Leadtimes																						
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																	
SM-2 Block IIIB/IV*	Raytheon, Tucson, AZ					156	175	500	-	5	19	19	24	E																	
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2006											FISCAL YEAR 2007											B A L			
						CY 2005			CALENDAR YEAR 2006											CALENDAR YEAR 2007											
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L	
SM-2 Blk IIIB Mod/Raytheon	2003	N	89	71	18			18						20			20			20											
SM-2 Blk IIIB Mod/Raytheon	2004	N	80	0	80						20			20			20			20											
SM-2 Blk IIIB Mod/Raytheon	2005	N	79	0	79														14						15			25	25		
SM-2 Blk IIIB Mod/Raytheon	2006	N	80	0	80																								80		
Rocket Motor Upgrade/Raytheon	2006	N	64	0	64																								64		
SM-2 Blk IIIB Mod/Raytheon	2007	N	79	0	79																								79		
SM-2 Blk IV Mod/Raytheon	2007	N	10	0	10																								10		
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2008											FISCAL YEAR 2009											B A L			
						CY 2007			CALENDAR YEAR 2008											CALENDAR YEAR 2009											
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L	
SM-2 Blk IIIB Mod/Raytheon	2005	N	79	54	25			25																							
SM-2 Blk IIIB Mod/Raytheon	2006	N	80	0	80						20			20			20			20											
Rocket Motor Upgrade/Raytheon	2006	N	64	0	64						16			16			16			16											
SM-2 Blk IIIB Mod/Raytheon	2007	N	79	0	79																7	7	6	7	7	6	7	7	6	19	
SM-2 Blk IV Mod/Raytheon	2007	N	10	0	10																1	1	1	1	1	1	1	1	1	1	

Remarks: \* SM-2 Block IIIB production rates apply to All Up Round (AUR) missiles in STANDARD Missile BLI 223400 and modified missiles in STANDARD Missile Modification BLI 235600.

DD Form 2445, JUL 87

311 / 244

Previous editions are obsolete

P-1 SHOPPING LIST

ITEM NO. 015

PAGE NO. 4

Exhibit P-21 Production Schedule

Classification:

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DD Form 2445, JUL 87	Previous editions are obsolete	P-1 SHOPPING LIST	Exhibit P-21 Production Schedule
311 / 244		ITEM NO. 015 PAGE NO. 5	Classification:

**UNCLASSIFIED**



<b>CLASSIFICATION:</b> <span style="float: right; font-size: 1.2em; font-weight: bold;">UNCLASSIFIED</span>												
<b>BUDGET ITEM JUSTIFICATION SHEET</b> <b>P-40</b>										<b>DATE:</b> <div style="text-align: right; font-weight: bold;">February 2006</div>		
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>Weapons Procurement, Navy      BA 2 - Other Missiles</b>							<b>P-1 ITEM NOMENCLATURE</b> <b>Weapons Industrial Facilities / 242000</b>					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST												
(In Millions)				\$33.2	\$30.4	\$4.6	\$4.8	\$4.9	\$5.0	\$5.1		\$88.0

This item provides funding to:

- Close, deactivate, prepare for disposal, and convey the Government-owned contractor operated (GOCO), Naval Weapons Industrial Reserve Plant (NWIRP) Bedford, MA under the cognizance of NAVSEA supported by WPN funds.
- Supports Capital Type Rehabilitation projects at two GOCO plants, Naval Industrial Reserve Ordnance Plant (NIROP) Allegany Ballistics Laboratory (ABL), WV and NIROP Fridley, MN. NIROP ABL supports weapons systems such as Sparrow, ESSM, ERGM, AIM-9X, Ramjet, AGS, Tomahawk GG and Trident GG. NIROP Fridley supports weapons systems such as VLS Mk 41, VLS Canisters, Mk 45 Mod 4, and AGS. Federal Acquisition Regulation Part 52.245-7 specifies that Facilities Use contracts require that the government fund capital type rehabilitation projects to support and maintain these facilities. These plants have an average age of 45 years and lack of proper maintenance will limit capabilities to maintain scheduled production rates and overall productivity. Funding is separated to reflect environmental, safety, major repair, energy conservation and facilities restoration.

ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations. These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.

- SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations. These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.

- MAJOR REPAIR: Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.

- ENERGY CONSERVATION: Provides funds to decrease energy consumption by installing new energy efficient systems and provides increased maintenance on these systems. Mandated in 1993 by Congress (Defense Appropriations Committee).

-FACILITIES RESTORATION: Provides funds for replacement of Weapons Industrial Facilities at NIROP ABL in Rocket Center, WV that have exceeded their useful life and deteriorated beyond safe operations (personnel & explosive).

DD Form 2454, JUN 86	ITEM NO. 16	P-1 SHOPPING LIST PAGE NO. 1	CLASSIFICATION: <b>Unclassified</b> (Exhibit P-40, page 1 of 3)
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<b>CLASSIFICATION:</b> <span style="float: right; font-size: 1.2em; font-weight: bold;">UNCLASSIFIED</span>												
<b>BUDGET ITEM JUSTIFICATION SHEET</b>										<b>DATE:</b> <span style="float: right; font-weight: bold;">February 2006</span>		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>P-40</b>  <b>APPROPRIATION/BUDGET ACTIVITY</b>  <b>Weapons Procurement, Navy      BA 2 - Other Missiles</b> </div> <div style="width: 55%;"> <b>P-1 ITEM NOMENCLATURE</b>  <b>Weapons Industrial Facilities / 242000</b> </div> </div>												
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)				\$33.2	\$30.4	\$4.6	\$4.8	\$4.9	\$5.0	\$5.1		\$88.0
<div>             (CONTINUED FROM PAGE 1 of 2)              NAVAIR   <b>MISSION AND DESCRIPTION :</b> This item provides funding to/for:              - Property management, minor maintenance, environmental compliance and divestiture support for Naval Weapons Industrial Reserve Plant                McGregor, TX.               NWIRP McGregor is being donated to the city of McGregor pursuant to PL 104-106. Six thousand acres have been transferred. The remaining              four thousand acres await decisions by the State of Texas on legally enforceable mechanisms for controlling the remainder of environmental              cleanup and perpetual maintenance of physical controls that must continue to exist to prevent re-release of pollutants. A separate decision              is needed from the federal Environmental Protection Agency on whether the cleanup measures are actually working. Installation and operation              of fixes must also be conducted by NAVFAC. Until these physical controls exist and legal settlements occur, a Navy cost of ownership will              continue.           </div>												
<div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <div>DD Form 2454, JUN 86</div> <div>             P-1 SHOPPING LIST              ITEM NO. 16           </div> <div>             CLASSIFICATION: <b>Unclassified</b>              (Exhibit P-40 , Page 2 of 3)           </div> </div>												

CLASSIFICATION: UNCLASSIFIED															
WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System						DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-2 Other Missiles						ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD Weapons Industrial Facilities BLI: 242000							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 2005			FY 2006			FY 2007					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
FU002	Capital Type Rehabilitation														
	Environmental					2,213			2,135			2,193			
	Safety					977			1,018			1,085			
	Energy Conservation					822			959			868			
	Major Repairs														
FU005	Facilities Restoration (ABL)					29,151			26,296						
FU020	Government-Owned Contractor-Operated Facilities Divestiture														
	NWIRP McGregor											499			
	NWIRP Toledo														
			0			33,163			30,408			4,645			
DD FORM 2446, JUN 86															
P-1 SHOPPING LIST															
CLASSIFICATION: UNCLASSIFIED															
(Exhibit P-5, page 3 of 3)															
ITEM NO. 16 PAGE NO. 3															

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-3 Surface Ship Torpedo Defense</b>							P-1 ITEM NOMENCLATURE <b>Surface Ship Torpedo Defense BLI: 311300 SBHD: H3TD</b>				
Program Element for Code B Items:							Other Related Program Elements				
	FY 2004 and Prior	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY											
COST (\$M)	0.0		0.0	3.9	5.9	6.0	8.4	8.6	8.8	CONT.	CONT.
Initial Spares (\$M)			0.0	0.0	0.0	0.0	0.0	0.0	0.0	CONT.	CONT.

**Surface Ship Torpedo Defense**

The Surface Ship Torpedo Defense (SSTD) WPN account procures Torpedo Countermeasures, Anti-Torpedo Torpedo (ATT) LRIP units. The ATT is derived from the Common Very Lightweight Torpedo EDM-2 development design initiated in FY07 under PE 0603506N.

FY06-08 - Procures ADC Mk2 Mod 1 over the side Acoustic Countermeasures for surface ship use.

FY09-11 - Procures CRAW LRIP units for operational testing and evaluation. Also, procures ATT LRIP units for operational testing for CVN ships.

P-1 SHOPPING LIST

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System				DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Surface Ship Torpedo Defense						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Surface Ship Torpedo Defense BLI: 311300 SBHD: H3TD						
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS										
			FY 2004 and Prior	FY 2005			FY 2006			FY 2007			
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
	ADC MK 2 Mod 1 <u>Ship Programs</u>												
XX010	Hardware		0			0	720	5,000	3,600	1,020	5,000	5,100	
XX020	Production Engineering - In House		0			0			99			270	
XX030	Acceptance T&E		0			0			158			402	
XX830	Production Engineering - Out House		0			0			84			84	
Total			0			0			3,941			5,856	
Total WPN						0			3,941			5,856	

CLASSIFICATION:

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System			<b>A. DATE</b> February 2006		
<b>B. APPROPRIATION/BUDGET ACTIVITY</b> Weapons Procurement, Navy BA-3 Surface Ship Torpedo Defense					<b>C. P-1 ITEM NOMENCLATURE</b> Surface Ship Torpedo Defense 311300				<b>SUBHEAD</b> H3TD	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY2006 ADC Mk 2 Mod 1	720	5	NAVSEA	N/A	Option/ FFP	Ultra, Braintree, MA	2/06	02/07	N/A	N/A
FY2007 ADC Mk 2 Mod 1	1,020	5	NAVSEA	N/A	Option/ FFP	Ultra, Braintree, MA	1/07	01/08	N/A	N/A
<b>D. REMARKS</b>										

CLASSIFICATION:

**UNCLASSIFIED****BUDGET ITEM JUSTIFICATION SHEET****P-40****DATE:****February 2006**

APPROPRIATION/BUDGET ACTIVITY

**Weapons Procurement, Navy/Torpedoes & Related Equipment, BA-3**

P-1 ITEM NOMENCLATURE

**ASW TARGETS LI#314100**

Program Element for Code B Items:

**0204271N / 0204228N**

Other Related Program Elements

	Prior Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QTY MODS MK-39/1 & 2*	1,503	A	1,701	922	1,000	1,000	1,000	1,000	1,000	N/A	9,126
QTY MODS MK-30/2	0	A	3	5	5	7	7	7	7	15	56
COST (\$M)*	\$50.3		\$26.2	\$24.2	\$25.0	\$30.3	\$31.0	\$31.7	\$32.4	\$56.2	\$307.3
Initial Spares (\$M)	\$4.0		\$0.3	\$0.0	\$0.4	\$0.0	\$0.0	\$0.4	\$0.4	Cont.	\$5.6
<b>TOTAL (\$M)</b>	<b>\$50.3</b>		<b>\$26.2</b>	<b>\$24.2</b>	<b>\$25.0</b>	<b>\$30.3</b>	<b>\$31.0</b>	<b>\$31.7</b>	<b>\$32.4</b>	<b>\$56.2</b>	<b>\$307.3</b>

\*Prior year includes MK 39 Mod 1. MK 39 Mod 2 quantities total is 9153 (prior year = 1452; prior year breakdown is FY02 = 450, FY03 = 501; FY04 = 501)

## ITEM DESCRIPTION/JUSTIFICATION:

This line item includes two distinct systems: (a) MK 39 Mod 2 (Cost Codes TG002, TG832, TG842, TG862 and TG900) and (b) MK30 Mod 2 (Cost Codes TG005, TG015, TG835, TG865, TG885, TG900 and TG905).

The MK 39 Mod 2 Expendable Mobile ASW Training Target (EMATT) is a small self-propelled underwater vehicle launchable from fixed wing and rotary wing ASW aircraft and ASW surface ships for the purpose of providing basic, open ocean sonar training and torpedo placement exercises. Its operation consists of a dynamic run trajectory that is actively controlled in depth and course with pre-programmable run maneuvers and is capable of generating a magnetic field (anomaly) detectable by all current Navy Magnetic Anomaly Detectors (MAD).

The MK 30 Mod 2 is the new generation fleet ASW training target for training the Navy surface ship, submarines and aircraft that will be capable of simulating submarine threats anticipated in the twenty-first century littoral warfare environment. Replacing the aging MK 30 Mod 1 target, MK 30 Mod 2 is a highly reliable and maintainable unmanned undersea vehicle simulating the dynamics, acoustics and magnetic signature of submarines and act as a target for ASW sensors and torpedoes to detect, classify, track and pursue in a realistic training environment.

In FY05 MK 30 Mod 2 production contract awarded for 3 units to Sippican/GSM Submarine Antenna Joint Venture, L.L.C. (here after referred to as Sippican/GSM).

P-1 SHOPPING LIST

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WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3: Torpedo and Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD ASW Targets LI#314100 Subhead H3TG										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 2005			FY 2006			FY 2007					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
TG002	MK39 Mod 2 - EMATT	A	23,077	1,701	3.35	5,701	922	3.39	3,126	1,000	3.08	3,080			
TG832	Prod Eng (In-house)	A	6,492			717			1,149			1,321			
TG842	Quality Assurance	A	357			0			102			104			
TG862	Acceptance T & E	A	452			161			121			135			
TG900	Consulting Services	A	1,248			110			106			121			
	<b>Total MK39 Mod 1/2 - EMATT*</b>	<b>A</b>	<b>31,626</b>			<b>6,689</b>			<b>4,604</b>			<b>4,761</b>			
TG005	MK30 Mod 2	A	460	3	5,724	17,172	5	3,062	15,310	5	3,142	15,710			
TG015	MK30 Mod 2 Support Equipment	A	1,138			104			1,837			1,871			
TG835	Production Engineering (In-house)	A	5,467			2,152			1,543			1,727			
TG865	Acceptance T & E	A	0			0			223			228			
TG885	Site Installation and Checkout	A	654			0			102			104			
TG900	Consulting Services	A	615			125			128			131			
TG905	Production Engineering (Contractor)	A	10,312			0			486			502			
	<b>Total MK30 Mod 2</b>	<b>A</b>	<b>18,646</b>			<b>19,553</b>			<b>19,629</b>			<b>20,273</b>			
			<b>50,272</b>			<b>26,242</b>			<b>24,233</b>			<b>25,034</b>			

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**MK 39 Mod 1/2 - EMATT**  
  
 \*Prior year includes MK39 Mod 1.  
**MK 30 Mod 2:**  
 Production contract awarded Feb 05 for 3 units.

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE <b>February 2006</b>		
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-3:Torpedo and Related Equipment</b>					C. P-1 ITEM NOMENCLATURE <b>ASW Targets LI#314100</b>				SUBHEAD <b>H3TG</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>FY2005</b>										
MK39 Mod 2 - EMATT	1,000	3.35	NAVSEA	N/A	C/FFP-Option	LM Sippican, Marion MA	Dec-04	Mar-07	Yes	N/A
MK39 Mod 2 - EMATT	701	3.35	NAVSEA	N/A	C/FFP-Option	LM Sippican, Marion MA	Apr-05	Jul-08	Yes	N/A
MK30 Mod 2	3	5,724	NAVSEA	May-04	C/FFP	Sippican/GSM, Marion MA Joint Venture	Feb-05	Jul-06	Yes	NA N/A
<b>FY2006</b>										
MK39 Mod 2 - EMATT	922	3.39	NAVSEA	N/A	C/FFP-Option	LM Sippican, Marion MA	Feb-06	Sep-09	Yes	N/A
MK30 Mod 2	5	3,062	NAVSEA	N/A	C/FFP-Option	Sippican/GSM, Marion MA Joint Venture	Feb-06	Sep-07	Yes	N/A
<b>FY2007</b>										
MK39 Mod 2 - EMATT	1,000	3.08	NAVSEA	N/A	C/FFP-Option	LM Sippican, Marion MA	Dec-06	Nov-10	Yes	N/A
MK30 Mod 2	5	3,142	NAVSEA	N/A	C/FFP-Option	Sippican/GSM, Marion MA Joint Venture	Dec-06	Jul-08	Yes	N/A
D. REMARKS	<b>MK39 Mod 2 - EMATT:</b>  Delivery dates based on negotiated contract. EMATT production lead time varies year to year.  <b>MK30 Mod 2:</b> Production contract awarded Feb 05 for 3 units.									





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BUDGET ITEM JUSTIFICATION SHEET P-40									DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/ Torpedoes &amp; Related Equipment</b>					P-1 ITEM NOMENCLATURE <b>Torpedo MK46 Mods/MK54 Mod 0, H3F5, LI# 321500</b>					
Program Element for Code B Items: <b>0204228N</b>					Other Related Program Elements <b>0604610N Lightweight Torpedo Development</b>					
	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY	A	94	103	212	133	380	252	252	cont.	1,523
COST (\$M)		\$60.8	\$68.6	\$96.5	\$84.9	\$176.6	\$151.1	\$167.6	cont.	\$931.2
Initial Spares (\$M)		\$2.5	\$2.2	\$0.3	\$0.2	\$0.1	\$0.1	\$0.1	cont.	\$5.6
<p>ITEM DESCRIPTION/JUSTIFICATION:</p> <p>The MK54 Mod 0 Lightweight Torpedo maximizes the use of non-developmental item (NDI) technologies from existing torpedo programs with state of the art COTS processors and is a modular upgrade to Lighthouse Torpedo Inventory. It is comprised of the MK50 sonar, MK46 warhead and propulsion system and new COTS processors which will use tactical software derived from MK50 and MK48 ADCAP. The MK54 provides improved performance against diesel electric submarine threats operating in shallow water. This budget includes the procurement of upgrade kits for VLA integration and compatibility funding to support the MK54 Equipped Unmanned Surface Vehicle (USV) and the MK54 High Altitude ASW Weapons Concept improvements (HAAWC).</p>										

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<div style="display: flex; justify-content: space-between;"> <div> <b>UNCLASSIFIED</b>  <small>CLASSIFICATION:</small> </div> <div> <b>UNCLASSIFIED</b> </div> </div>														
<b>WEAPONS SYSTEM COST ANALYSIS</b> <b>P-5</b>							Weapon System				DATE: <b>February 2006</b>			
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/ Torpedoes &amp; Related Equipment, BA-3</b>							ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD  Torpedo MK46 Mods/MK54 /Mod 0, H3F5, LI# 321500					
COST CODE	ELEMENT OF COST	ID Code												
						FY 2005			FY 2006			FY 2007		
						Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
F5103	Field Support Operations	A												-
F5104	Hardware**					94	565	53,130	103	517	53,231	212	362	76,762
F5105	Fleet Exercise Systems							0			0			0
F5106	MK 54 Platform Integration							0			0			-
F5107	MK54/VLA Kits							353	40	164	6,570	40	65	2,611
F5108	MK54 USV							0			0			0
F5109	HAAWC							0			0			0
F5003	Support Equipment *							547			679			871
F5830	Production Engineering-In-house							2,768			4,288			6,163
F5860	Accept. Test & Evaluation							3,424			3,200			9,470
F5900	Production Engineering-Contractor							600			614			628
								<b>60,822</b>			<b>68,582</b>			<b>96,505</b>

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\* Support Equipment budget includes the cost of procuring 2 MK695 Test Set in FY06 and procuring test sets (Processor Group Assembly (PGA), Control Group Assembly (CGA), and Hybrid Array and Transmitter Assembly (HATA) Test Set, 3 Automatic HATA Test Sets and 5 Automatic Lightweight Integrated Test Sets (AUTO LITS).

\*\* Hardware budget includes hardware, NRE, ECPs and install costs. In FY07 and prior years production existing MK50 acoustic arrays and transmitters were used and provided as Government Furnished Equipment (GFE) to the production contract.

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE February 2006			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy					C. P-1 ITEM NOMENCLATURE Torpedo MK46 Mods/MK54 Mod 0, H3F5, LI# 321500				SUBHEAD H3F5	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
MK 54 Mod 0/ 2004	51	664	NAVSEA	N/A	SS/FP	Raytheon, Keyport, WA	Jun-04	Apr-06	Yes	
MK 54 Mod 0/ 2005	94	565	NAVSEA	N/A	SS/FP	Raytheon, Keyport, WA	Jan-05	Dec-06	Yes	
MK 54 Mod 0/ 2006	103	517	NAVSEA	N/A	SS/FP (option)	Raytheon, Keyport, WA	Apr-06	Dec-07	Yes	
MK 54 Mod 0/ 2007	212	362	NAVSEA	N/A	SS/FP (option)	Raytheon, Keyport, WA	Dec-06	Jun-08	Yes	
MK 54 Mod 0/ 2008	133	515	NAVSEA	N/A	SS/FP (option)	Raytheon, Keyport, WA	Dec-07	Jun-09	Yes	
D. REMARKS Unit cost reflected in this budget includes install cost from prior year buys. Kit Installations occur as contractor hardware is delivered from prior year procurements. Therefore, the quantity installed in any given year is different from the procurement quantity.										

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P3A

## INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED: MK54 Mod 0 TYPE MODIFICATION:

MODIFICATION TITLE: LWT Hardware (F5104)

## DESCRIPTION/JUSTIFICATION:

The MK54 Mod 0 Lightweight Torpedo (LWT) is a modular upgrade, designed to take advantage of the current USN investments in hardware and technology by utilizing components from the MK46, MK50, and MK48 ADCAP Torpedoes, as well as commercial-off-the-shelf (COTS) processor components with open systems architecture. In addition, it will integrate software improvements gained from the MK50 Shallow Water Performance Program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Development testing began 4th qtr FY99, OPEVAL complete 4th qtr FY04

	FY 2004 & Prior		FY 2005		FY2006		FY2007		FY 2008		FY 2009		FY2010		FY2011		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
<u>FINANCIAL PLAN (IN MILLIONS)</u>																		
<u>RDT&amp;E</u>		67,872		15,281		31,348		40,540		31,434		42,493		36,665		21,512		287,145
<u>PROCUREMENT</u>																		
INSTALLATION KITS	97	79,591	94	52,834	103	52,086	212	75,099	133	65,900	380	133,715	252	107,457	252	107,931	1,523	674,614
INSTALLATION KITS - UNIT COST **		821		562		505		354		495		352		426		428		443
INSTALLATION KITS NONRECURRING																		-
EQUIPMENT																		-
EQUIPMENT NONRECURRING ***		3,365																3,365
ENGINEERING CHANGE ORDERS																		-
DATA																		-
TRAINING EQUIPMENT																		-
SUPPORT EQUIPMENT		5,173		547		679		871		891		911		929		948		10,949
OTHER -- PE & Acceptance T&E		33,912		6,192		7,488		15,633		12,204		21,856		18,182		18,785		134,252
OTHER NONRECURRING *		174		353		6,570		2,611		2,652		2,295		2,339		2,383		19,377
OTHER****										0		14,000		17,500		31,000		62,500
INTERIM CONTRACTOR SUPPORT		2,367		600		614		628		642		657		670		684		6,862
INSTALL COST		510		296		1,145		1,663		2,656		3,194		3,979		5,896		19,339
TOTAL PROCUREMENT		125,093		60,822		68,582		96,505		84,945		176,628		151,056		167,627		931,258

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\* OTHER NONRECURRING reflects FY2005, FY2006 &amp; FY2007 MK54/VLA Flight Integration efforts, as identified on P-5 exhibit.

\*\* UNIT COST represents Equipment, ECPs, and NRE

\*\*\* EQUIPMENT NON-RECURRING funding includes only FES.

\*\*\*\*OTHER represents USV and HAAWC funding in FY2009-FY2011

In FY07 and prior years production existing MK50 acoustic arrays and transmitters were used and provided as Government Furnished Equipment (GFE) to the production contract. Beginning in FY08 new acoustic arrays and transmitters will be produced.

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P3A (Continued)

MODELS OF SYSTEMS AFFECTED:     MK54 Mod 0     MODIFICATION TITLE:     LWT Hardware (F5104)    

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Sole Source Contract-Raytheon**

ADMINISTRATIVE LEADTIME:     3 Months     PRODUCTION LEADTIME:     18 Months    

CONTRACT DATES: FY 2005:     Jan-05     FY 2006:     Apr-06     FY 2007:     Dec-06    

DELIVERY DATE: FY 2005:     Dec-05     FY 2006:     Oct-07     FY 2007:     Jun-08    

(\$ in Millions)

Cost:	FY04 & Prior		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty		Qty	\$
PRIOR YEARS	17	510																	17	510
FY 2000 EQUIPMENT																				
FY 2001 EQUIPMENT																				
FY 2002 EQUIPMENT																				
FY 2003 EQUIPMENT			19	296.4	10	159.0													29	455.4
FY 2004 EQUIPMENT					51	810.9													51	810.9
FY 2005 EQUIPMENT					11	174.9	83	1,352.9											94	1,527.8
FY 2006 EQUIPMENT							19	309.7	84	1,394.4									103	1,704.1
FY 2007 EQUIPMENT									76	1,261.6	136	2,298.4							212	3,560.0
FY 2008 EQUIPMENT											53	895.7	80	1,384.0					133	2,279.7
FY 2009 EQUIPMENT													150	2,595.0	230	4,048.0			380	6,643.0
FY 2010 EQUIPMENT															105	1,848.0	147	2,631.3	252	4,479.3
FY 2011 EQUIPMENT																	252	4,510.8	252	4,510.8
TO COMPLETE																				
Total:	17	510.0	19	296.4	72	1,144.8	102	1,662.6	160	2,656.0	189	3,194.1	230	3,979.0	335	5,896.0	399	7,142.1	1523	26,481.0

INSTALLATION SCHEDULE:

		FY 2004	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				IC	TOTAL
		& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
789	In	17	0	7	6	6	13	20	18	21	24	24	30	24	24	32	47	57	57	58	40	34	33	35	72	90	90	101	67	399	1,523	
	Out	17	0	0	0	7	6	6	13	20	18	21	24	24	30	24	24	32	47	57	57	58	40	34	33	35	72	90	90	101	543	1,523

Comments:

Production lead time varies based upon contract delivery schedule.

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**BUDGET ITEM JUSTIFICATION SHEET**

**P-40**

**DATE:**

**February 2006**

APPROPRIATION/BUDGET ACTIVITY

**Weapons Procurement, Navy/BA-3 Torpedo and Related Equip**

P-1 ITEM NOMENCLATURE

**MK 48 ADCAP MODS Torpedo BLI: 322500 SBHD: H3D1**

Program Element for Code B Items:

**0204284N**

Other Related Program Elements

**0205632N Heavyweight Torpedo Development**

	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY MODS	A	79	0	0	0	0	0	0	0	1,070
QUANTITY CBASS	B	15	73	103	136	142	150	150	479	1,263
COST (\$M)		\$60.6	\$57.5	\$61.5	\$64.4	\$66.0	\$67.7	\$69.3	\$357.5	\$1,314.2
Initial Spares (\$M)		\$4.6	\$4.3	\$2.0	\$2.6	\$2.8	\$2.8	\$2.7	CONT.	\$21.7

**ITEM DESCRIPTION/JUSTIFICATION:**

This line item procures upgrade kits for the MK48 Mod 5 ADCAP Heavyweight Torpedo including the Mod 6 (MODs) and the Mod 7 CBASS (Common Broadband Advanced Sonar System)

The MK48 ADCAP MODS kit incorporates a new Guidance and Control (G&C) modification and a Torpedo Propulsion Upgrade (TPU) modification to the baseline ADCAP system. The G&C Modification provides a common G&C with the Mod 7 CBASS replacing obsolete electronic components with Commercial Off The Shelf Processors and increased processing capacity. The increased capacity is required for future advanced signal processing techniques that are needed for performance upgrades in shallow water target detection/classification. The Torpedo Propulsion Upgrade (TPU) addresses the Navy's operational requirement for a quieter ADCAP torpedo. These modifications allow the MK48 ADCAP torpedo to operate effectively in adverse environments, thus enabling the MK48 ADCAP torpedo to counter enemy submarine threats into the 21st century.

The Common Broadband Advanced Sonar System (CBASS) torpedo consists of three major components - Afterbody Torpedo Propulsion Upgrades (TPU), Guidance and Control (G&C), and a Broadband Sonar Analog Receiver (BSAR). Both the Afterbody TPU and G&C are continuous from the MODs (MOD 6) production in FY2005. The BSAR is a CBASS specific item that will be procured beginning in FY2006 and consists of a preamplifier, receiver, and interfacing hardware that provides the capability to transmit and receive over a wide frequency band and that takes advantage of broadband signal processing techniques. This provides for improvements in advanced threat countermeasures capabilities. Afterbody TPU kits (required for Forebody/Afterbody compatibility with the ADCAP MODs G&C kits) will be procured in FY2004 through FY2007. In FY2008 through the remainder of the Mod 7 CBASS program, G&C kits will be procured in addition to the CBASS kits for installation in Mod 6 MODs Torpedoes which already contain the TPU upgrade.

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WEAPONS SYSTEM COST ANALYSIS										DATE:	
P-5										February 2006	
APPROPRIATION/BUDGET ACTIVITY			P-1 ITEM NOMENCLATURE/SUBHEAD								
Weapons Procurement, Navy			MK 48 ADCAP MODS Torpedo BLI: 322500 SBHD: H3D1								
BA-3 Torpedo and Related Equipment											
COST CODE	ELEMENT OF COST	ID Code									
			FY 2005			FY 2006			FY 2007		
			Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
D1001	ADCAP MODS	A	79	337	26,610			3,564			2,557
	CBASS	B	15	550	8,250	73	438	31,969	103	350	36,065
	(Contractor, Installation, ECP, TI)										
D1003	Support and Ancillary Equipment				2,730			1,725			1,751
D1830	Production Engineering				11,647			10,819			11,355
	(Contractor and In House)										
D1860	Acceptance T&E				11,359			9,425			9,800
	(Contractor and In House)										
					60,596			57,501			61,528

NOTE: ADCAP MOD funding in FY06 and FY07 is install cost only.

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System			A. DATE <b>February 2006</b>		
<b>B. APPROPRIATION/BUDGET ACTIVITY</b> <b>Weapons Procurement, Navy</b> <b>BA-3 Torpedo and Related Equipment</b>					<b>C. P-1 ITEM NOMENCLATURE</b> <b>MK 48 ADCAP MODS Torpedo BLI: 322500</b>				<b>SUBHEAD</b> <b>SBHD: H3D1</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY04 MK48 MOD6	81	317	NAVSEA	Jul-03	SS/FP	Raytheon Systems Corporation	Jun-04	Aug-05	YES	
FY04 CBASS	15	545	NAVSEA	Jul-03	SS/CP	Raytheon Systems Corporation	Jun-04	Oct-06	YES	
FY05 MK48 MOD6	79	337	NAVSEA	Jul-03	SS/FP	Raytheon Systems Corporation	Jan-05	Aug-06	YES	
FY05 CBASS	15	550	NAVSEA	Jul-03	SS/CP	Raytheon Systems Corporation	Jan-05	Nov-06	YES	
FY06 CBASS	73	438	NAVSEA	N/A	SS/FP (option)	Raytheon Systems Corporation	Apr-06	Dec-07	YES	
FY07 CBASS	103	350	NAVSEA	N/A	SS/FP (option)	Raytheon Systems Corporation	Dec-06	Aug-08	YES	
FY08 CBASS	136	298	NAVSEA	N/A	SS/FP (option)	Raytheon Systems Corporation	Dec-07	Aug-09	YES	
<b>D. REMARKS</b> Unit cost reflected in this budget includes install cost from prior year buys & ECP's for the current procurement year. Kit Installations occur as contractor hardware is delivered from prior year procurements. Therefore, the quantity installed in any given year is different from the procurement quantity.										

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P3A <span style="float: right;">INDIVIDUAL MODIFICATION</span>																			
MODELS OF SYSTEM AFFECTED: <u>MK48 ADCAP/CBASS</u>				MODIFICATION TITLE: <u>MK48 ADCAP MODS/CBASS Torpedo (D1001)</u>															
DESCRIPTION/JUSTIFICATION:																			
The Modification Kits for the MK48 ADCAP/CBASS Torpedo allows the MK48 ADCAP/CBASS torpedo to operate in adverse environments such as shallow water, thus enabling the MK48 ADCAP/CBASS torpedo to counter enemy submarine threats into the 21st century.																			
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: <u>MS II approved in Jan 1993; MS III approved in Apr. 1996</u>																			
	<u>FY 2004 &amp; prior</u>		<u>FY 2005</u>		<u>FY 2006</u>		<u>FY 2007</u>		<u>FY 2008</u>		<u>FY 2009</u>		<u>FY 2010</u>		<u>FY 2011</u>		<u>TC</u>	<u>TOTAL</u>	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<u>FINANCIAL PLAN (IN MILLIONS)</u>																			
<u>RDT&amp;E</u>		58,432		21,237		21,724		24,988		25,915		26,425		27,279		28,053		Cont.	Cont.
<u>PROCUREMENT</u>																			
MOD INSTALLATION KITS	991	163,105	79	21,084		3,564		2,557										1,070	190,309
MODS INSTALLATION KITS - UNIT COST		165		267															178
CBASS INSTALLATION KITS	15	8,176	15	8,250	73	28,405	103	30,785	136	37,398	142	36,072	150	35,491	150	35,587	479	179,957	1,263
CBASS INSTALLATION KITS - UNIT COST		545		550		389		299		275		254		237		237		376	317
EQUIPMENT																			
EQUIPMENT NONRECURRING																			
ENGINEERING CHANGE ORDERS																			
DATA																			
TRAINING EQUIPMENT																			
SUPPORT EQUIPMENT		28,731		2,730		1,725		1,751		1,781		1,822		1,864		1,901		20,980	63,285
OTHER (includes all CBASS costs minus install kits)		248,791		20,627		17,537		18,386		19,333		20,342		21,133		21,858		106,071	494,078
OTHER																			
OTHER																			
INTERIM CONTRACTOR SUPPORT		27,766		2,379		2,707		2,769		2,832		2,897		2,964		3,031		15,866	63,211
INSTALL COST		33,152		5,526		3,564		5,281		3,087		4,912		6,236		6,892		34,634	103,283
TOTAL PROCUREMENT		509,722		60,596		57,501		61,528		64,431		66,045		67,688		69,269		357,508	1,314,287

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED:

MK48 ADCAP

MODIFICATION TITLE:

MK48 ADCAP MODS Torpedo

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

CONTRACT DATES:

DELIVERY DATE:

FP Raytheon Systems, Corporation contracted by NAVSEA

3 Months

PRODUCTION LEADTIME:

19 Months

FY 2004: Jun-04

FY 2004: Aug-05

FY 2005: Jan-05

FY 2005: Aug-06

FY 2006: N/A

FY 2006: N/A

(\$ in Millions)

Cost:	FY04 & Prior		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2011		FY 2010		To Complete		Total	
	Qty	\$				\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		\$
PRIOR YEARS	720	27,547.2																	720	27,547.2
FY 2001 EQUIPMENT (P6)	50	1,913.0																	50	1,913.0
FY 2002 EQUIPMENT (P7)	22	1,349.9	13	520.4															35	1,870.3
FY 2003 EQUIPMENT (P8)	60	2,341.8	45	1,801.4															105	4,143.2
FY 2004 EQUIPMENT (P9)			12	480.4	69	2,826.2													81	3,306.6
FY 2005 EQUIPMENT (P10)					18	737.3	61	2,556.5											79	2,556.5
TO COMPLETE																				
TOTAL	852	33,151.9	70	2,802.1	87	3,563.5	61	2,556.5	0	0	0	0	0	0	0	0	0	0	1,070	42,073.9

INSTALLATION SCHEDULE:

	FY 2004 & Prior	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				IC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	852	18	18	17	17	22	22	22	21	16	15	15	15	0	0	0	0	0	0	0	0	0	1070
Out	816	18	18	18	18	17	17	22	22	22	21	16	15	15	15	0	0	0	0	0	0	0	1070

Remarks:

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

**INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED:

MODIFICATION TITLE: MK48 MODS 7 (CBASS) Torpedo

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME :

3 Months

PRODUCTION LEADTIME :

20 months

CONTRACT DATES:

FY2005: Jan-05

FY2006: Apr-06

FY2007: Dec-06

DELIVERY DATE:

FY2005: Nov-06

FY2006: Dec-07

FY2007: Aug-08

(\$ in Millions)

Cost:	FY 2004 & Prior		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																				
FY 2003 EQUIPMENT																				0
FY 2004 EQUIPMENT (LRIP I)							15	628.7											15	628.7
FY 2005 EQUIPMENT (LRIP II)							15	628.7											15	628.7
FY 2006 EQUIPMENT (LRIP III)							35	1,466.9	38	1,629.1									73	3,095.9
FY 2007 EQUIPMENT (P1)									34	1,457.6	69	3,026.3							103	4,483.9
FY 2008 EQUIPMENT (P2)											43	1,886.0	93	4,172.0					136	6,058.0
FY 2009 EQUIPMENT (P3)													46	2,063.6	96	4,594.6			142	6,658.1
To Complete															48	2,297.3	731	34,634.8	779	36,932.1
Totals			0	0.0	0	0.0	65	2,724.2	72	3,086.6	112	4,912.3	139	6,235.5	144	6,891.8	731	34,634.8	1,263	58,485.3

INSTALLATION SCHEDULE: Input=Delivery to the Facility, Output=Facility providing to Fleet, ready for issue

	FY 2004 & Prior	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				TC	TOTAL
In	0	0	0	0	0	0	0	0	0	21	3	20	21	21	21	11	19	27	27	28	30	33	36	35	35	36	36	36	36	731	1,263
Out	0	0	0	0	0	0	0	0	0	0	0	11	15	4	6	9	21	21	19	7	27	53	45	44	40	39	39	29	25	809	1,263

Remarks:

P-3A

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-3: Torpedoes and Related Equipment</b>							P-1 ITEM NOMENCLATURE <b>QUICKSTRIKE/323100/73QS</b>					
Program Element for Code B Items:							Other Related Program Elements <b>204304N</b>					
	Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY												
COST (\$M)	\$10.812	A		2.952	2.978	3.103	3.234	3.487	3.619	14.972	CONT.	CONT.
Initial Spares (\$M)	\$0.0	A		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	CONT.	CONT.
PROGRAM DESCRIPTION/JUSTIFICATION:  The QUICKSTRIKE (QS) family of air delivered mines has 3 variants based on size - the MK 62, MK 63, and MK 65. The MK 62 and MK 63 (500 lb. and 1000 lb.) QS are created by adding mine hardware to the MK 82 and MK 83 general purpose bomb (respectively) to form a mine. The MK 65 (2000 lb.) QS consists entirely of hardware designed for use as a mine. The Mod 0, 1, and 3 variants utilize various target detection devices (TDD). The QS Mod 3 utilizes a newly developed TDD, MK 71, a software-programmable device capable of being programmed to optimize detection of new threats. For the QUICKSTRIKE MK 62 and 63, the QS Mod 3 Kit consists of the Target Detection Devices (including the service and dummy MK 71), Safe/Arming (S&A) devices (including the service MK 75, practice MK 81, and dummy MK 84), battery (MK 176), TDD Adapter Ring MK 163, and miscellaneous hardware. For the QUICKSTRIKE MK 65, the Mod 3 Kit consists of the Target Detection Devices (including the service and dummy MK 71), the existing Safe/Arming devices (including the service MK 45, and practice and dummy S&A devices), the existing batteries MK 131 or 132, TDD Adapter MK 157, and miscellaneous hardware. Additional support hardware for the QS MK 62/63/65 Mod 3 includes Test Set MK 650 and Programmer MK 11. The 2010 Mine being developed (begun in FY 2003) will be a replacement for the Mine MK 56, designated to be removed from service beginning in FY 2011.												

P-1 SHOPPING LIST

CLASSIFICATION:

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CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY Weapoms Procurement, Navy, BA-3: Torpedoes and Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD  QUICKSTRIKE/323100/73QS										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years				FY 2005			FY 2006			FY 2007		
			Total Cost				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
QS001	TDD MK 71	A	3128				80	12	979	165	12	1922	113	12	1356
QS002	QUICKSTRIKE MOD KITS (Batteries & Service S/A MK 75)		723				130		1101	165		413	113		1066
	- MK 62/63 Mod Kit						0		0	0		0	54	17	918
	- MK 65 Mod Kit						130	8	1101	165	3	413	59	3	148
QS003	2010 MINE		0						0			0			0
QS004	TRAINING S/A		0						0			0	5	10	50
QS005	SUPPORT HARDWARE		1397						50			0			25
	- TDD MK 71								50			0			25
	- 2010 Mine								0			0			0
QS830	PRODUCTION ENGINEERING		1640						434			380			396
	- TDD MK 71								434			380			396
	- 2010 Mine								0			0			0
QS840	QUALITY ASSURANCE		595						100			150			130
	- TDD MK 71								100			150			130
	- 2010 Mine								0			0			0
QS850	SOFTWARE ENGINEERING		2421						258			53			50
	- TDD MK 71								258			53			50
	- 2010 Mine								0			0			0
QS860	ACCEPTANCE T&E		908						30			60			30
	- TDD MK 71								30			60			30
	- 2010 Mine								0			0			0
			10,812						2,952			2,978			3,103

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CLASSIFICATION:

<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>						Weapon System		A. DATE <b>February 2006</b>		
<b>B. APPROPRIATION/BUDGET ACTIVITY</b> <b>Weapons Procurement, Navy, BA-3:</b> <b>Torpedoes and Related Equipment</b>					<b>C. P-1 ITEM NOMENCLATURE</b> <b>QUICKSTRIKE/323100</b>				<b>SUBHEAD</b> <b>73QS</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b><u>FISCAL YEAR 2005</u></b>										
QS001 TDD Mk71	80	12	NAVSEA	OPTION	C/FFP	SECHAN, LITITZ, PA	08/05	08/06	YES	N/A
QS002 MK 65 MOD KITS	130	8	NSWC, PANAMA CITY, FL	OPTION	C/FFP	N/A	08/05	08/06	YES	N/A
<b><u>FISCAL YEAR 2006</u></b>										
QS001 TDD Mk71	165	12	NAVSEA	OPTION	C/FFP	SECHAN, LITITZ, PA	11/05	11/06	YES	N/A
QS002 MK 65 MOD KITS	165	3	NSWC, PANAMA CITY, FL	OPTION	C/FFP	N/A	11/05	11/06	YES	N/A
<b><u>FISCAL YEAR 2007</u></b>										
QS001 TDD Mk71	113	12	NAVSEA	OPTION	C/FFP	SECHAN, LITITZ, PA	11/06	11/07	YES	N/A
QS002 MK 62 MOD KITS	54	17	NSWC, PANAMA	OPTION	C/FFP	N/A	11/06	11/07	YES	N/A
QS002 MK 65 MOD KITS	59	3	NSWC, PANAMA	OPTION	C/FFP	N/A	11/06	11/07	YES	N/A
D. REMARKS										

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-3 Torpedo and Related Equipment</b>							P-1 ITEM NOMENCLATURE <b>Torpedo Support Equipment BLI: 330100 SBHD: H3F8</b>					
Program Element for Code B Items:							Other Related Program Elements					
	FY 2004 and Prior	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program	
QUANTITY												
COST (\$M)	CONT.		\$23.2	\$28.8	\$26.3	\$36.1	\$36.0	\$36.4	\$38.1	CONT.	CONT.	
Initial Spares (\$M)	CONT.		\$0.0	\$0.1	\$0.1	\$0.1	\$0.0	\$0.1	\$0.1	CONT.	CONT.	
<p>The Torpedo Support Equipment account procures various 4T and associated torpedo components required to ready weapons for Surface Ships, Submarines, Fixed Wing, and Rotary Wing to achieve and maintain a readiness posture sufficient to counter the enemy submarine threat. The objective of this line is to provide the Fleet with ready exercise weapons for conducting training maneuvers which involve actually firing the torpedoes, and to maintain warshot inventories in an operational ready-for-issue status in support of combat ready deployment by anti-submarine warfare forces. After a torpedo is fired during a training exercise it is recovered and all expendable components such as batteries, cables, igniters (as well as various accessories required for air-launched torpedoes), must be replaced. These items as well as components such as exercise heads, fuel tanks, and exhaust valves which may be used more than one time, but which are worn out or lost in service, are procured each fiscal year in quantities dependent upon the Fleet training requirements and tempo of operations. The torpedoes requiring support are the MK46 Mod 5A(S), MK46 Mod 5A(SW), MK 48 Mod 4, 5, 6, and 7, MK 50, MK 54 and their associated Support and Test Equipment (S&amp;TE). Cost codes F8001- Lightweight Support Equipment and F8100 - Heavyweight Exercise and Expendables and Component Replacement procures 4T components to support Fleet Proficiency Firings. 4T Components includes the following: lead droppers, seawater batteries, pressure cylinders, Recoverable Exercise Torpedo (REXTORP) kits, sway brace pads, suspension bands, thermal batteries, boiler assemblies, stop squibs, shutdown valves, gas injection assemblies, tailnuts, air stabilizers, wire coils, flex hoses, Otto Fuel, igniters, propellant, umbilical cables, and containers. Cost Codes F8002 - Lightweight Other Equipment Investment and F8101 - Heavyweight Other Equipment Investment procures and installs Engineering Change Proposal/Ordinance Alteration (ECP/ORDALT) material required for Support and Test Equipment and to retrofit torpedoes including 4T components to the latest ready-for-issue (RFI) configuration. In addition to 4T components procurement and other equipment investment, this account provides for production support and test/evaluation for these components and procurement of product improvement hardware and related equipment.</p>												

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System							DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Other Related Equipment						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD  Torpedo Support Equipment BLI: 330100 SBHD: H3F8								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			FY 2004 and Prior	FY 2005		FY 2006			FY 2007			FY 2008			
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
F8001	Lightweight Support Equipment					847			1,116			978			1,074
F8002	Other Equipment Investment					2,335			1,684			2,032			2,015
F8830	Production Engineering - In House					1,188			1,313			1,190			1,283
F8840	Quality Assurance					75			70			76			76
F8860	Acceptance T & E					469			490			466			476
F8900	Production Engineering - Contractor					180			190			194			198
Total	Lightweight Total					5,094			4,863			4,936			5,122
F8100	Exercise and Expendables and Component Replacement					8,897			12,054			10,921			17,082
F8101	Other Equipment Investment					5,739			7,857			6,291			9,610
F8833	Production Engineering (In-house)					2,285			2,348			2,418			2,491
F8843	Quality Assurance					330			589			607			625
F8863	Acceptance Test and Evaluation					230			438			451			465
F8893	Production Engineering - Contractor					600			700			721			743
Total	Heavyweight Total					18,081			23,986			21,409			31,016
						23,175			28,849			26,345			36,138

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)						Weapon System		A. DATE <b>February 2006</b>		
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-3 Torpedo Support Equipment</b>					C. P-1 ITEM NOMENCLATURE <b>Torpedo Support Equipment BLI: 330100</b>				SUBHEAD <b>H3F8</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>FY2005</b>										
Universal REXTORP	25	31.880	NUWC, Keyport / NAVSEA	11/04	C / FFP	Unknown	10/05	1/06	Yes	
Safety Static Line Assembly	100	0.500	NUWC, Keyport	3/05	C / FFP	Unknown	7/05	1/06	Yes	
Torpedo Wire Coil	797	3.223	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	6/05	8/06	Yes	
Sub Wire Coil	1200	2.184	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	6/05	12/05	Yes	
Flex Hose (Improved)	1200	1.101	NUWC,Keyport	5/05	C / FFP	Cortland Cable Co., Cortland, NY	7/05	10/05	Yes	
Otto Fuel (lbs)	41667	*12.36	NSWC Indian Head	Option	SS / FFP	NSWC Indian Head, MD	5/05	9/05	Yes	
Propellant	1000	0.893	NAVSEA	Option	SS / FFP	Alliant Techsystems, Elkton MD	6/05	3/06	Yes	
MK62-1 A-Cable Receptacle	840	1.029	NAVSEA	Option	C / FFP	SEACON Phoenix, Westerly, R.I.	6/05	10/05	Yes	
MK62-1 A-Cable Insert	1000	0.102	NAVSEA	Option	C / FFP	General Reliance Inc., Denville NJ	4/05	10/05	Yes	
<b>FY2006</b>										
Universal REXTORP	32	32.000	NAVSEA	Option	C / FFP	Unknown	1/06	1/07	Yes	
MK54 Igniter	151	0.612	NUWC, Keyport	Option	C / FFP	Unknown	3/06	11/06	Yes	
Torpedo Wire Coil	1375	3.177	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	3/06	9/07	Yes	
Sub Wire Coil	1282	2.250	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	3/06	2/07	Yes	
Flex Hose (Improved)	1300	1.123	NUWC, Keyport	10/05	C / FFP	Cortland Cable Co., Cortland, NY	12/05	3/06	Yes	
Otto Fuel (lbs)	111022	*12.61	NSWC Indian Head	Option	SS / FFP	NSWC Indian Head, MD	10/06	2/06	Yes	
Igniter	782	0.138	NAVSEA	Option	C / FFP	Isreal Military Industries Ltd.	3/06	7/06	Yes	
Propellant	500	1.086	NAVSEA	Option	SS / FFP	Alliant Techsystems, Elkton MD	3/06	6/07	Yes	
MK62-1 A-Cable Receptacle	237	1.200	NAVSEA	Option	C / FFP	SEACON Phoenix, Westerly, R.I.	3/06	6/07	Yes	
MK62-1 A-Cable Insert	1000	0.104	NAVSEA	11/05	C / FFP	Unknown	3/06	9/06	Yes	
<b>FY2007</b>										
Universal REXTORP	29	32.000	NAVSEA	Option	C / FFP	Unknown	3/07	1/08	Yes	
MK50 REXTORP Kit	500	0.100	NUWC, Keyport	Option	SS / FFP	Team Keyport Services, Poulsbo WA	3/07	8/07	Yes	
Torpedo Wire Coil	1267	3.275	NAVSEA	11/06	C / FFP	Unknown	3/07	9/07	Yes	
Sub Wire Coil	1282	2.318	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	3/07	4/08	Yes	
Flex Hose (Improved)	1267	1.146	NUWC,Keyport	Option	C / FFP	Unknown	3/07	7/07	Yes	
Igniter	782	0.265	NAVSEA	Option	C / FFP	Isreal Military Industries Ltd.	3/07	7/07	Yes	
Propellant	882	0.957	NAVSEA	Option	SS / FFP	Alliant Techsystems, Elkton MD	3/07	6/08	Yes	
MK62-1 A-Cable Receptacle	247	1.065	NAVSEA	11/06	C / FFP	Unknown	3/07	9/07	Yes	
MK62-1 A-Cable Insert	1067	0.106	NAVSEA	Option	C / FFP	Unknown	3/07	9/07	Yes	
FES Upgrades	11	66.894	NAVSEA	11/06	C	Unknown	3/07	1/08	Yes	
Fuel Tank Upgrades	11	16.724	NAVSEA	11/06	C	Unknown	3/07	1/08	Yes	
D. REMARKS *Units expressed in \$/lb										

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE <b>BA 3 - Torpedoes and Related Equipment</b>					<b>ASW Range Support BLI: 330200 SBHD: 83F4</b>	
Program Element for Code B Items:							Other Related Program Elements						
	Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program	
QUANTITY													
COST (\$M)				\$14.603	\$12.866	\$13.288	\$13.873	\$14.261	\$14.681	\$15.088	Continuing	Continuing	
Initial Spares (\$M)													
<p>The ASW Range support program provides training range equipment, weapon proofing range equipment, and Fleet support equipment for use on the Navy's underwater ranges. This equipment is used to instrument Fleet exercises and torpedo firings, ASW readiness assessment and ASW weapon production acceptance testing. The Weapon Fleet training ranges supported are Southern California Offshore Range (SCORE), Barking Sands Tactical Underwater Range/Barking Sands Underwater Range Extension (BARSTUR/BSURE), Atlantic Underwater Test and Evaluation Center (AUTEC) and Test and Evaluation (T&amp;E) ranges are Nanoose, Dabob Bay and Quinalt.</p> <p>F4001 - Pinger Exercise Components are placed in weapons and other underwater vehicles for tracking during training and T&amp;E exercises, and to insure safe operation and movement of all craft and weapons on the ranges. In addition, pinger components are also procured to support the future Shallow Water Training Ranges at both coasts and Hawaii.</p> <p>F4003 - Recovery Equipment is used on T&amp;E ranges for recovering weapons on or buried in the sea floor. Approximately \$10 million of hardware is recovered each year using these devices.</p> <p>F4004 - The T&amp;E Range Equipment line provides for improvement and modernization of range equipment for YTT (Yard Torpedo Tender) and test crafts; portable tracking range components used at remote sites for testing requirements in different sea-bottom, littoral and cold water environments; and other range systems in support of weapon T&amp;E operations.</p> <p>F4005 - The ASW Target MK 30 Mod 1 provides essential fleet ASW training on the Navy's underwater tracking ranges. The MK 30 Mod 1 is currently used at the BARSTUR - Hawaii, AUTEC- Bahamas, and SCORE. ASW range support funds are used to procure components for the MK 30 that are consumed/expended during fleet in-water runs. These funds are also used to replace obsolete components and improve maintenance and reliability of the targets.</p> <p>F4006 - The stationary target components include the MK 28 Targets, and T&amp;E Targets. MK 28 Targets are used for conducting Service Weapons Test (SWT) on in-service and advanced warshot torpedoes. The SWT is the only test the Navy has to verify the explosive chain of torpedoes. Funding is used to procure target systems and components expended during SWT operations in addition to improvement and modernization projects. The T&amp;E targets include the MK 69, a bottom mounted stationary target, and Over-the-side (OTS), a surface deployed target, used to test various weapon attributes during T&amp;E exercises. These targets are needed to fill specific technical requirements for the MK 48 ADCAP, MK 50 and MK54 torpedo upgrades. Funding is used to procure components that improve operability and maintenance of the target.</p> <p>F4007 - This is a Congressional plus-up to support the Northwest Range Complex that provides the test resources for acceptance testing for USW system acquisition. Funding will provide for upgrade/refurbishment of existing range systems that are required to keep the Range Complex viable. The major systems that require upgrade/refurbishment are: Range Craft and Craft Systems, Fire Control and Instrumentation, and Engineering and display systems.</p> <p>Production Engineering funds support efforts performed by a field activity or contractor during the production phase of these projects.</p>													

P-1 SHOPPING LIST

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5							Weapon System							DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 3 - Torpedoes and Related Equipment							ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD ASW Range Support BLI: 330200 SBHD: 83F4								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS														
			Prior Years				FY 2005			FY 2006			FY 2007				
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
	N43 Ranges (S06)																
F4001	Pinger Exercise Components								2,342			2,344			2,366		
F4003	Recovery Equipment								347			326			193		
F4004	Test & Evaluation Range Equipment								2,329			2,476			2,509		
F4006	Statuibartk Target Components								1,591			1,460			1,739		
F4007	NW Range Upgrade								1,799			0			0		
F4830	Production Engineering In-House								622			650			683		
F4850	Product Improvement								500			515			536		
	Sub-total								9,530			7,771			8,026		
	N43 MK30 (SUBS)																
F4005	MK30 Components								3,087			3,132			3,241		
F4830	Production Engineering In-House								1,851			1,825			1,880		
F4850	Product Improvement								135			138			141		
F4900	Production Engineering Contractor								0			0			0		
	Sub-total								5,073			5,095			5,262		
	TOTAL								14,603			12,866			13,288		

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40				DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA - 3 Torpedoes and Related Equipment		P-1 ITEM NOMENCLATURE BLI 2410 FIRST DESTINATION TRANSPORTATION (FDT) / 93TA					
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
COST (In Millions)	3.1	3.1	3.3	3.4	3.4	3.5	3.6
<p>First Destination Transportation (FDT) provides for the movement of newly procured equipment and material from the contractor's plant to the initial point of receipt for subsequent shipment to its destination.</p>							



CLASSIFICATION UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS														DATE:	
P-5														February 2006	
APPROPRIATION/BUDGET ACTIVITY															
Weapons Procurement, Navy															
BA 3 Torpedoes and Related Equipment															
COST CODE	ELEMENT OF COST	IDENT CODE	TOTAL COST IN THOUSANDS OF DOLLARS												
			FY 2005		FY 2006		FY 2007								
			QTY	COST	QTY	COST	QTY	COST							
TA001	First Destination Transportation			3,109		3,146		3,259							

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40									DATE: February 2006				
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY</b> <b>BA-4: OTHER WEAPONS</b>								P-1 ITEM NOMENCLATURE/LINE ITEM # <b>SMALL ARMS AND WEAPONS - BLI #412900</b> <b>74E3</b>					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code			FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY													0
EQUIPMENT COST (In Millions)	N/A				\$25.3	\$18.2	\$12.5	\$14.4	\$12.7	\$14.8	\$15.2		\$113.1
SPARES COST (In Millions)													0
<b>PROGRAM DESCRIPTION/JUSTIFICATION:</b>  Quantities of weapons procured with the above funding are to meet small arms allowances and inventory objectives. This line item provides for initial issue procurement, modernization, standardization and stock replenishment procurement of a wide variety of small arms and weapons (caliber .50 and below), including required gun mounts and associated support components. The line also provides for procurement of sufficient types and quantities of weapons to support training, security afloat and shore missions of approximately 2,495 ship/ashore activities Navy-wide. This line item procures M240/Mk-46/Mk-19/.50 Cal Machine guns, Mk-82 Sniper Rifles, M16A3 Rifles, M727 Carbines, 12 Gauge Shotguns, M11 Pistols, Mk-82/93/95/97 Mounts, and other related equipment for Naval Mobile Construction Batalions, Naval Construction Force Support Units, Construction Battalion Maintenance Units and Mobile Security Force. Funds in the amount of \$7.2M are provided in FY06 for Operation Hip Pocket weapons. Also in FY06 funds are provided for Naval Special Warfare Navy common weapons and \$2.7M is provided for MSC Force Protection weapons. Received \$23M in FY05 Supp Funding to procure M240B. Additional funds have been provided beginning with \$3M in FY07 for the establishment of the Riverine Command. In FY07 \$3M is provided for procurement of weapons for NCW/EOD. Of the amount shown above in FY05, \$.134M was provided by the IFF to fund the Combined Explosive Exploitation Cell (CEXC).  <div style="text-align: right; margin-right: 100px;"> <u>FY 2005</u>    <u>FY 2006</u>    <u>FY 2007</u> </div> <div style="margin-top: 10px;"> <b>Funding Totals</b> <span style="float: right; margin-right: 100px;"> <b>\$25,308    \$18,218    \$12,508</b> </span> </div>													

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

(Exhibit P-40, page 1 of 3)

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET FOR AGGREGATED ITEMS P-40a							DATE: February 2006					
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy, BA-4: Other Weapons							P-1 ITEM NOMENCLATURE SMALL ARMS AND WEAPONS - BLI #412900 24E3					
Procurement Items	ID Code	Prior Years		FY 2005	FY 2006	FY 2007						
M16A3 5.56MM Rifle		0			0/0	100/134						
M79 40MM GL		0			60/46	68/53						
P239 9MM Compact Pistol		0			183/120	303/199						
MOSS 500A1 12GA Shotgun		0	0		100/39	122/48						
MK-19 MOD 3 40MM GMG		0			9/181	64/1345						
M2HB .50 CAL MG		0		0	101/1888	75/1397						
M2HB MG Refurb		0	0	300/1500	49/217	400/1770						
M240 7.62MM MG		0	0	1953/23018	1022/10259	305/2598						
MK44 7.62MM Minigun		0	0	0	10/673	24/1663						
MK14 Enhanced Battle Rifle					233/536	233/552						
M11 9MM Pistol		0	0	8/4	100/74	100/74						
M1911 .45 CAL PISTOL		0	0	0	20/16	10/8						
M224, 60 MM Mortar		0	0	0	7/160	6/141						
M203 40MM GL		0	0	0	118/80	100/142						
MK727/M4 5.56MM Carbine		0	0	576/427	849/1061	520/650						
AIMING SYS		0	0	0	0	50/62						
AIMPOINT		0	0	0	0	50/26						
RAIL INTERFACE SYS		0	0	67	0	0						
SMALL ARMS MOUNTS		0	0	97/292	484/1676	373/749						
REFURBISHMENT PARTS		0	0	0	1126	707						
PRODUCTION ENGINEERING		0	0	0	66	190						

DD Form 2454, JUN 86

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO. 26

PAGE NO. 2

**Unclassified**

(Exhibit P-40a, page 2 of 3)

**CLASSIFICATION: Unclassified**

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)								DATE: Feb 2006	
APPROPRIATION: WEAPONS PROCUREMENT, NAVY BA-4: OTHER WEAPONS				P-1 ITEM NOMENCLATURE: SMALL ARMS AND WEAPONS BLI# 412900					
Program Element for Code B Items:				Other Related Program Elements				SUBHEAD 74E3	
Cost Code	ELEMENT OF COST			FY 2005		FY 2006		FY 2007	
		QTY	TOT COST	QTY	TOT COST	QTY	TOT COST	QTY	TOT COST
E3001	SMALL ARMS AND WEAPONS								
	M16A3 5.56MM RIFLE					0	0	100	134
	M79 40MM GL					60	46	68	53
	P239 9MM COMPACT PISTOL					183	120	303	199
	MOSS 500A1 12GA SHOTGUN					100	39	122	48
	MK-19 MOD 3 40MM GMG					9	181	64	1,345
	M2HB .50 CAL MG					101	1,888	75	1,397
	M2HB MG REFURB			300	1,500	49	217	400	1,770
	M240 7.62MM MG			1,953	23,018	1,022	10,259	305	2,598
	MK44 7.62MM MINIGUN					10	673	24	1,663
	MK14 ENHANCED BATTLE RIFLE					233	536	233	552
	M11 9MM PISTOL			8	4	100	74	100	74
	M1911 .45 CAL PISTOL					20	16	10	8
	M224 60MM MORTAR					7	160	6	141
	M203 4MM GL					118	80	100	142
	MK727/M4 5.56MM CARBINE			576	427	849	1,061	520	650
	AIMING SYSTEM							50	62
	AIMPOINT							50	26
	RAIL INTERFACE SYS				67				
	SMALL ARMS MOUNTS			97	292	484	1,676	373	749
	REFURBISHMENT PARTS						1,126		707
	PRODUCTION ENGINEERING						66		190
	TOTAL SHIP ESTIMATE				25,308		18,218		12,508
	NET P-1 LINE ITEM				25,308		18,218		12,508

P-1 Shopping List

**CLASSIFICATION:****Unclassified**

CLASSIFICATION: **UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>								DATE: <b>FEBRUARY 2006</b>			
<b>P-40</b>											
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE				
<b>BA-4: OTHER WEAPONS</b>							<b>MK-15 CLOSE-IN WEAPON SYSTEM (CIWS) MODS-A4DT (LI#4205)</b>				
Program Element for Code B Items:							Other Related Program Elements				
	FY 2004 and Prior	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011	To Complete	Total Program
QUANTITY	55	A	26	39	27	32	45	16	0	0	240
COST (M\$)	212.1	A	100.2	193.1	151.2	178.0	248.0	124.3	23.4	9.3	1239.6
Initial Spares (M\$)	0.5		0	0	0	0	0	0	0	0	0.5
<p><b>ITEM DESCRIPTION/JUSTIFICATION:</b> PHALANX CLOSE-IN WEAPON SYSTEM (CIWS) IS A HIGH FIRE RATE WEAPON SYSTEM THAT AUTOMATICALLY ACQUIRES, TRACKS, AND DESTROYS ANTI-SHIP MISSILES (ASMS) THAT HAVE PENETRATED ALL OTHER SHIP'S DEFENSES.</p> <p>CIWS BLOCK 1B: THIS LINE IS AN UPGRADE/CONVERSION TO CIWS INCORPORATING A STABILIZED THERMAL IMAGER AND AN AUTOMATIC ACQUISITION VIDEO TRACKER THAT PROVIDES THE ADDITIONAL CAPABILITY TO ENGAGE SMALL, HIGH SPEED, MANEUVERING SURFACE CRAFT AND LOW, SLOW AIRCRAFT AND HELICOPTERS. THE THERMAL IMAGER ALSO IMPROVES PERFORMANCE AGAINST ANTI-SHIP CRUISE MISSILES BY PROVIDING MORE ACCURATE ANGLE TRACKING INFORMATION TO THE FIRE CONTROL COMPUTER. CIWS BLOCK 1B IS SCHEDULED TO BE INSTALLED ON THE FOLLOWING SHIP CLASSES: CGs, CVNs, DDGs, FFGs, LCCs, LHAs, LHDs, LPDs, LSDs, WMSLs AND TRAINERS. THE INSTALLATIONS WILL BE COMPLETED DURING A LIMITED AVAILABILITY BY SHIPALT/AIT.</p> <p>THERE ARE 237 SHIPBOARD SYSTEMS, 2 TRAINERS, AND 1 EDM/PCI MOUNT IN THE PROGRAM OF RECORD. THIS BUDGET ALSO PROVIDES FOR INSTALLATION OF 6 WMSLs AND 2 CG-71 SYSTEMS PROCURED UNDER SEPARATE BLIs.</p> <p>EQUIPMENT INSTALLATION: FUNDING IS FOR THE INSTALLATION OF EQUIPMENT, INCLUDING FLEET MODERNIZATION PROGRAM INSTALLS, AND INSTALLATION OF EQUIPMENT AT SHORE FACILITIES.</p>											

P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION: UNCLASSIFIED

																		FEBRUARY 2006				
P3A		INDIVIDUAL MODIFICATION														CIWS BLI 4205						
MODELS OF SYSTEM AFFECTED:		PHALANX CIWS BLOCK I				TYPE MODIFICATION:				UPGRADE/CONVERSION				MODIFICATION TITLE:				UPGRADE/CONVERSION TO BLOCK IB				
DESCRIPTION/JUSTIFICATION:																						
THE BLOCK IB SURFACE MODE MOUNT INCLUDES THE ADDITION OF A THERMAL IMAGER, AN AUTOMATIC ACQUISITION VIDEO TRACKER AND STABILIZATION SYSTEM FOR THE TRACKER.																						
THE UPGRADE IS ESSENTIAL TO PROVIDE THE FLEET CAPABILITY AGAINST SMALL HIGH SPEED SURFACE THREATS AND LOW SLOW SPEED AIR THREATS.																						
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: COMPLETE																						
		FY 2004 & Prior		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC		TOTAL		
		QTY		\$		QTY		\$		QTY		\$		QTY		\$		QTY		\$		
FINANCIAL PLAN (IN MILLIONS)																						
RDT&E			40.300																		40.300	
PROCUREMENT																						
CIWS BLOCK IB PROCUREMENT		53	107.236	26	58.136	39	86.939	27	59.067	32	69.909	45	102.627	16	40.116	0	0.000			238	524.030	
CIWS BLOCK IB CONVERSION/UPGRADE		53	52.720	26	3.975	39	89.400	27	70.186	32	84.930	45	121.941	16	44.267	0	0.000			238	467.419	
CIWS BLOCK IB INSTALLATION *		26	7.243	8	3.459	20	4.572	22	6.075	39	12.649	32	9.458	34	10.939	40	13.054		24	8.595	245	76.044
TRAINER PROCUREMENT		2	4.200																	2	4.200	
TRAINER UPGRADE/CONVERSION/		2	1.948																	2	1.948	
TRAINER INSTALLATION		2	0.130																	2	0.130	
ECP/ORDALT			0.000				2.623		3.890		2.240		4.063		18.224		3.699				34.739	
OTHER (GRAY RADOMES)		180	1.382	60	0.498															240	1.880	
PRODUCTION ENGINEERING SUPPORT			31.443		33.386		6.334		7.045		4.000		5.006		4.152		4.243			0	95.609	
DSA SERVICES			5.775		0.777		3.203		4.931		4.314		4.888		6.581		2.453		0.688	0	33.610	
TOTAL PROCUREMENT			212.077		100.231		193.071		151.194		178.042		247.983		124.279		23.449		9.283	240	1239.609	

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

**FEBRUARY 2006**

**CIWS BLI 4205**

MODELS OF SYSTEMS AFFECTED: **PHALANX CIWS BLOCK I**

MODIFICATION TITLE: **UPGRADE AND CONVERSION TO BLOCK IB**

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Block IB Surface Mode will be accomplished through upgrade/conversion by OEM.**

ADMINISTRATIVE LEAD-TIME: 6 MONTHS

PRODUCTION LEADTIME: 22 MONTHS

CONTRACT DATES: FY 2005: MAR 2005

FY 2006: MAR 2006

FY 2007: NOV 2006

DELIVERY DATE: FY 2005: JAN 2007

FY 2006: JAN 2008

FY 2007: SEP 2008

(\$ in Millions)

Cost:	FY 2004 & Prior		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011				To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2004 & PRIOR YEARS	26	13.018	8	3.459	20	4.572															54	21.049
FY 2005 EQUIPMENT				0.777			22	6.075	4	1.297											26	8.149
FY 2006 EQUIPMENT						3.203			35	11.351	5	1.478									40	16.032
FY 2007 EQUIPMENT								4.931			27	7.981	1	0.322							28	13.234
FY 2008 EQUIPMENT										4.315			33	10.617							33	14.932
FY 2009 EQUIPMENT											4.887				40	13.054			6	2.120	46	20.061
FY 2010 EQUIPMENT														6.581					17	6.093	17	12.674
FY 2011 EQUIPMENT																2.453			1	1.070	1	3.523
																					0	0.000
TO COMPLETE																					0	0.000
TOTAL	26	13.018	8	4.236	20	7.775	22	11.006	39	16.963	32	14.346	34	17.520	40	15.507			24	9.283	245	109.654

INSTALLATION SCHEDULE: Input=DELIVERY FROM OEM, Output=INSTALLATION ON SHIPS \*

	FY 2004 & Prior	FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				TC	TOTAL
In	26	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	12	237
Out	26	1	3	3	1	1	3	10	6	4	8	3	7	7	9	11	12	4	12	5	11	6	10	9	9	7	15	8	10	24	245

P-3A

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CLASSIFICATION: **UNCLASSIFIED**

\* One EDM and two Trainers are not included in the installation schedule.

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40									DATE: FEBRUARY 2006			
<b>APPROPRIATION/BUDGET ACTIVITY</b> WEAPONS PROCUREMENT, NAVY BA-4: OTHER WEAPONS <b>Program Element for Code B Items:</b>							<b>P-1 ITEM NOMENCLATURE</b> Coast Guard Weapons/BLI 420600 <b>Other Related Program Elements</b>					
	FY2004 and Prior	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY2009	FY 2010	FY2011	To Complete	Total
QUANTITY					1	1	1	1	1	1		6
COST (In Millions)				0.0	5.3	5.4	5.4	5.5	5.5	5.7	CONT.	CONT.
SPARES COST (In Millions)												
<b>MISSION DESCRIPTION AND BUDGET JUSTIFICATION:</b>  The Coast Guard Weapons line funds the Coast Guard requirement for Combat System Suites for new construction ships under the Coast Guard Integrated Deepwater System Replacement Project. Under an inter-service agreement (delineated in OPNAVINST 4000.79A), DON provides the combat, detection, and electronic systems required for the Coast Guard to integrate with the Navy in times of war and conflict. Ship Construction and installation costs are funded under the Department of Homeland Security appropriation.  Combat System Suite procured must complement and integrate with future Navy Combat Systems. The suite is an appropriate balance of equipment to ensure the Coast Guard is prepared to accomplish its assigned Naval Warfare Tasks in concert with U.S. Navy units. The Combat Systems Suite will be aligned with future Naval ship building programs to support commonality among the two Services' systems and meet National Fleet objectives.  The Deepwater Combat Suites will include the following:  Weapons Systems - Provides the Phalanx CIWS 1B gun and fire control systems to engage surface and air threats, including the capability to fire warning shots, disabling fire and achieve mission kill against threats.												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**



CLASSIFICATION: **UNCLASSIFIED**

<b>WEAPONS SYSTEM COST ANALYSIS</b> P-5						<b>Weapon System</b>						<b>DATE:</b> FEBRUARY 2006				
<b>APPROPRIATION/BUDGET ACTIVITY</b> Weapons Procurement, Navy/BA-4 BA-4: OTHER WEAPONS						<b>ID Code</b>		<b>P-1 ITEM NOMENCLATURE/SUBHEAD</b> COAST GUARD WEAPONS BLI: 420600						<b>SUBHEAD</b> A4CG		
<b>COST CODE</b>	<b>ELEMENT OF COST</b>	<b>ID Code</b>	<b>TOTAL COST IN THOUSANDS OF DOLLARS</b>													
			<b>FY 2004 and Prior</b>				<b>FY 2005</b>			<b>FY 2006</b>			<b>FY 2007</b>			
			<b>Total Cost</b>				<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total Cost</b>	
<b>CG001</b>	<b>DEEP WATER Combat Suites</b>  Phalanx CIWS 1B Weapons Systems								0.0	1	5,304	5,304	1	5,385	5,385	
									<b>0.0</b>			<b>5,304</b>			<b>5,385</b>	

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)							Weapon System		DATE FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-4: OTHER WEAPONS				P-1 ITEM NOMENCLATURE COAST GUARD WEAPONS BLI: 420600				SUBHEAD A4CG		
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b><u>CG001</u></b>										
<b><i>FISCAL YEAR (06)</i></b> DEEP WATER Combat Suites	1	5,304	NAVSEA	05/05	SS/FP	Raytheon Company, Louisville KY	2/06	11/07	YES	
<b><i>FISCAL YEAR (07)</i></b> DEEP WATER Combat Suites	1	5,385	NAVSEA	05/06	SS/FP	Raytheon Company, Louisville KY	11/06	11/08	YES	
D. REMARKS										

P3A **INDIVIDUAL MODIFICATION**MODELS OF SYSTEM AFFECTED: \_\_\_\_\_ TYPE MODIFICATION: INTEGRATION CAPABILITY MODIFICATION TITLE: Phalanx CIWS Weapons Systems

## DESCRIPTION/JUSTIFICATION:

Provides the Phalanx CIWS 1B gun and fire control systems to engage surface and air threats, including the capability to fire warning shots, disabling fire and achieve mission kill against threats.

## DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: \_\_\_\_\_

	FY 2004 & Prior				FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC	TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																					
RDT&E																				0.0	
PROCUREMENT																					
INSTALLATION KITS																			0	0.0	
INSTALLATION KITS - UNIT COST																				0.0	
INSTALLATION KITS NONRECURRING																				0.0	
EQUIPMENT					0	0.0	1	5.3	1	5.4	1	5.4	1	5.5	1	5.5	1	5.7		6	32.8
EQUIPMENT NONRECURRING																				0.0	
ENGINEERING CHANGE ORDERS																				0.0	
DATA																				0.0	
TRAINING EQUIPMENT																				0.0	
SUPPORT EQUIPMENT																				0.0	
PRODUCTION SUPPORT																				0.0	
OTHER (ILS/TEST SUPPORT)																				0.0	
OTHER (CSS)																				0.0	
INTERIM CONTRACTOR SUPPORT																				0.0	
INSTALL COST																				0.0	
TOTAL PROCUREMENT	0	0.0	0	0.0	0	0.0	1	5.3	1	5.4	1	5.4	1	5.5	1	5.5	1	5.7		6	32.8

Installation is funded by the DHS, Coast Guard Deepwater Program.

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy / BA-4: OTHER WEAPONS</b>					P-1 ITEM NOMENCLATURE <b>BLI: 4217      GUN MOUNT MODS</b>						
Program Element for Code B Items:					Other Related Program Elements						
	2004 and Prior Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Program
QUANTITY											
COST (\$M)	\$48.8		\$43.0	\$82.3	\$8.9	\$0.1	\$70.4	\$14.4	\$6.6	<b>CONT</b>	<b>CONT</b>
INITIAL SPARES (\$M)			0.7	3.1	0.1	0.1	0.6	0.2	0.1	<b>CONT</b>	<b>CONT</b>
<p>E5001 - MK 45 MOD 1 &amp; 2: This element procures gun safety and shock hardening ORDALTs for 5" MK 45 gun mounts.</p> <p>E5002 - MINOR CALIBER MODS: This element procures ORDALTs and miscellaneous equipment required to improve safety and reliability for the 25MM MK 38 Machine Gun System and all other minor caliber weapons much of which is outdated and difficult to support. It provides initial fill kits and replacement of surveyed and outdated minor caliber weapons for active ships. This element also procures MK 11 saluting mounts and related components.</p> <p>E5004 - MK 45 MOD 4: This element procures modifications to upgrade MK45 gun mounts to the deployable Mod 4 configuration which includes Shock Test Rest requirements, fleet deployment configuration ECPs and ORDALTs, as well as the backfit of handling/loading capability for extended range munitions on DDGs and land based training/test units.</p> <p>E5006 - MK 38 MOD 2 GUN: This element procures MK 38 Gun Mounts.</p> <p>E5007 - Force Protection Weapons: This element procures Force Protection Weapons mods for DDG 51. In order to provide measures for Anti-Terrorist/Force Protection (ATFP), weaponry modifications were implemented in DDG 51 Class Ships. Modifications included the addition of 25MM chain gun foundations, associated communications, and weapon and ammunition stowage.</p> <p>FY06 Congressional Add For 7.0M for MK45 Mod 4 Gun upgrades included in Cost Code E5004. FY06 Congressional Add \$2.1M for Minor Caliber Gun included in Cost Code E5002.</p>											

**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5			Weapon System								DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-4			ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD  GUN MOUNT MODS/4217								
COST CODE	ELEMENT OF COST	ID Code										
			FY2004 AND PRIOR	FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
E5001	MK 45 MODS 1 & 2					6,615			2,679			4,042
E5002	Minor Caliber Mods					847			2,874			369
E5004	MK 45 MOD 4					15,047			8,302			1,676
E5006	MK 38 MOD 2 Gun			13	1,501	19,517	67	1,007	67,489	2	922	1,844
E5007	Force Protection Weapons (ATFP)					1,003			990			1,005
						29						
				13	1,501	43,029	67	1,007	82,334	2	922	8,936

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P-1 SHOPPING LIST ITEM NO.

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CLASSIFICATION:

PAGE NO

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**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System		A. DATE <b>February 2006</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-4</b>					C. P-1 ITEM NOMENCLATURE <b>GUN MOUNT MODS/4217</b>				SUBHEAD <b>A4E5</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>MK 38 Gun</b>										
FY2005	13	1,501	NSWC PHD DET LOU	N/A	IDIQ FFP	BAE, Louisville KY	Mar-05	Jan-06	YES	N/A
FY2006	67	1,007	NSWC PHD DET LOU	N/A	IDIQ FFP	BAE, Louisville KY	Apr-06	Oct-06	YES	N/A
FY2007	2	922	NSWC PHD DET LOU	N/A	IDIQ FFP	BAE, Louisville KY	Apr-07	Oct-07	N/A	N/A
D. REMARKS										

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**UNCLASSIFIED**

P3A

MODELS OF SYSTEM AFFECTED: TYPE MODIFICATION: WPNS PROCUREMENT MODIFICATION TITLE: E5004 - MK 45 MOD 4

DESCRIPTION/JUSTIFICATION:

This element procures modifications to upgrade MK45 gun mounts to the deployable Mod 4 configuration which includes Shock Test Rest requirements, fleet deployment configuration ECPs and ORDALTS, as well as the backfit of handling/loading capability for extended range munitions on DDGs and land based training/test units.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY2004 AND PRIOR		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		IC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																				
RDT&E																				
PROCUREMENT																				
INSTALLATION KITS	35	36.09	31	13.58	12	6.90	4	0.50	0	0.00	0	0.00	0	0.00	0	0.00	264	71.80	346	128.87
INSTALLATION KITS - UNIT COST																				
INSTALLATION KITS NONRECURRING																				
EQUIPMENT																				
EQUIPMENT NONRECURRING																				
ENGINEERING CHANGE ORDERS																				
DATA																				
TRAINING EQUIPMENT																				
SUPPORT EQUIPMENT																				
PRODUCTION SUPPORT																				
OTHER (ILS/TEST SUPPORT)																				
OTHER (CSS)																				
INTERIM CONTRACTOR SUPPORT																				
INSTALL COST	10	0.05	9	1.47	28	1.40	24	1.18	0	0.00	0	0.00	0	0.00	0	0.00	275	30.25	346	34.35
TOTAL PROCUREMENT		36.14		15.05		8.30		1.68		0.00		0.00		0.00		0.00		102.05		163.22

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED

MK 45 MOD 4

MODIFICATION TITLE:

E5004 - MK 45 MOD 4

INSTALLATION INFORMATION:

ALTERATION INSTALLATION TEAM (AIT)

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

PRODUCTION LEADTIME:

CONTRACT DATES:

FY2005

N/A

FY 2006

N/A

FY 2007

N/A

DELIVERY DATE:

FY2005

N/A

FY 2006

N/A

FY 2007

N/A

(\$ in Millions)

Cost:	FY2004 & PRIOR		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	10	0.05																	10	0.05
FY 2005 INSTALLATION KITS			9	1.5															9	1.50
FY 2006 INSTALLATION KITS					28	1.4													28	1.40
FY 2007 INSTALLATION KITS							24	1.18											24	1.18
FY 2008 INSTALLATION KITS									0	0									0	0.00
FY 2009 INSTALLATION KITS											0	0							0	0.00
FY 2010 INSTALLATION KITS													0	0					0	0.00
FY 2011 INSTALLATION KITS															0	0			0	0.00
TO COMPLETE																	275	30.25	275	30.25

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INSTALLATION SCHEDULE:

	FY2004 & PRIOR				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				TC	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	10	0	0	0	3	3	3	0	21	2	3	2	5	5	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	346	
Out	0	0	9	1	0	3	3	3	15	4	7	2	5	5	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	346		

P-3A



CLASSIFICATION: **UNCLASSIFIED**

P3A	<b>INDIVIDUAL MODIFICATION</b>	
MODELS OF SYSTEM AFFECTED:	<u>MK 38 MOD 2</u>	TYPE MODIFICATION: <u>WPNS PROCUREMENT</u> MODIFICATION TITLE: <u>STABILIZED GUN SYS PROCURE</u>
DESCRIPTION/JUSTIFICATION:		
Procure stabilized, remote control kits for MK 38 MOD 2 Machine Gun Systems for installation on Surface Combatant/Amphibs to meet new Force Protection/Antiterrorism requirements. Four MK38 MOD2 Machine Gun Systems procured in FY06 will be installed on submarine escort vessels.		
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		

	FY 2004 AND		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC		TOTAL	
	PRIOR																			
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																				
RDT&E																				
PROCUREMENT																				
INSTALLATION KITS	8	4.96	13	7.90	67	39.26	2	1.42	0	0.00	0	0.00	0	0.00	1	0.79	100	100.0	191	154.33
INSTALLATION KITS - UNIT COST		0.62		0.61		0.59		0.71				0.00		0.00		0.79		1.00		
INSTALLATION KITS NONRECURRING		0.78																		0.78
EQUIPMENT																				
EQUIPMENT NONRECURRING																				
ENGINEERING CHANGE ORDERS				4.81		3.59		0.07										5.4		13.87
DATA																				
TRAINING EQUIPMENT																				
SUPPORT EQUIPMENT																				
PRODUCTION SUPPORT		0.20		0.30		0.65		0.10		0.00		0.00		0.00		0.07		1.0		2.32
OTHER (ILS/TEST SUPPORT)		1.55		1.89		0.68		0.12		0.00		0.00		0.00		0.57		2.5		7.31
OTHER (CSS)																				
INTERIM CONTRACTOR SUPPORT																				
INSTALL COST	8	1.62	13	4.61	67	23.30	2	0.14	0	0.00	0	0.00	0	0.00	1	0.17	100	30.00	191	59.84
TOTAL PROCUREMENT		9.11		19.51		67.48		1.85		0.00		0.00		0.00		1.60		138.90	191	238.45

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED:   MK 38 MOD 2

MODIFICATION TITLE:   STABILIZED GUN SYS PROCUREMENT

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

CONTRACT DATES:   FY 2005:

DELIVERY DATE:    FY2005

PRODUCTION LEADTIME:

FY2006

FY2006

FY2007

FY2007

(\$ in Millions)

Cost:	FY04 and Prior		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty		Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	8	1.62																	8	1.62
FY 2005 EQUIPMENT			13	4.61															13	4.61
FY 2006 EQUIPMENT					67	23.30													67	23.30
FY 2007 EQUIPMENT							2	0.14											2	0.14
FY 2008 EQUIPMENT									0	0.00									0	0.00
FY 2009 EQUIPMENT											0	0.00							0	0.00
FY 2010 EQUIPMENT													0	0.00					0	0.00
FY 2011 EQUIPMENT															1	0.17			1	0.17
TO COMPLETE																	100	30.00	100	30.00
																			191	

INSTALLATION SCHEDULE:

	FY2004 AND PRIOR				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				TC	TOTAL
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
IN	0	0	0	0	4	4	0	0	0	8	5	4	18	18	18	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	100	191
OUT	0	0	0	0	0	2	3	0	0	3	7	10	0	18	18	18	9	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	100	191

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CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>						DATE: <b>February 2006</b>					
<b>P-40</b>											
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY B.A.4</b>						P-1 ITEM NOMENCLATURE <b>422200 PIONEER PROGRAM</b>					
Program Element for Code B Items:						Other Related Program Elements					
	Prior Years	ID Code	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY											
COST (In Millions)	<b>18.871</b>	<b>A</b>	<b>12.747</b>	<b>4.938</b>	<b>7.056</b>	<b>10.097</b>	<b>2.056</b>	<b>2.173</b>	<b>2.316</b>		<b>60.254</b>

The Pioneer Unmanned Aerial Vehicle (UAV) provides near real-time reconnaissance, surveillance, target acquisition, combat assessment and battlefield management within Line Of Sight of a Ground Control Station (GCS) in limited weather, both day and night. Deployments around the world have supported numerous joint military operations and contingencies, including Bosnia Herzegovina, Somalia, the Adriatic, Persian Gulf operations, Desert Shield and Desert Storm, and Operation Iraqi Freedom (OIF) I, II and III. To date, the system has flown in excess of 40,074.1 flight hours.

The Pioneer Program addresses the critical issues facing the Pioneer system: obsolescence and mobility. The acquisition strategy uses an Engineering Change Proposal (ECP) approach, focusing on the most urgent user needs. The mobility enhancements consist of down-sized trailer-mounted launchers, HMMWV-mounted GCS, and UAV transport trailers for improved mobility in-theater via C-130 aircraft. To meet the payload shortfall, the Pioneer Program will procure additional Army Shadow Tactical Unmanned Aerial Vehicle (TUAV) Plug-in Optronics Payloads. A new UEL 741 Engine will replace the current engine, which has shown reliability issues and is increasingly difficult to sustain due to limited spares.

Pioneer is fielded with two operational systems which support United States Marine Corps (USMC) land-based operations. A third system supports training requirements, and the fourth supports test and evaluation.

Each operational system consists of: five air vehicles that have electro-optical (EO) and infrared (IR) payloads; two GCS; one portable control station; one tracking and communications unit; one to four remote receiving stations. In FY07, the Data Link will be upgraded to Tactical Control Data Link (TCDL).

\* FY06 includes \$3.0M Title IX supplemental funding for the procurement of additional engines and MIAG/MAIS/Data links.

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED												
WEAPONS SYSTEM COST ANALYSIS P-5			Weapon System							DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy B.A.4			ID Code A	P-1 ITEM NOMENCLATURE/SUBHEAD 422200 PIONEER PROGRAM								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN MILLIONS OF DOLLARS									
			Prior Years	FY 2005			FY 2006			FY 2007		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
	Transportability	A	1.267									
	- Launchers	A	1.175									
	- Trailers	A	0.425									
	-Man-packable Receiver Systems (MRS)	A	0.787									
	-IFF(Transponders)	A	0.196				20	0.009	0.172			
	Payloads	A	7.633	15	0.273	4.100						
	Engines Install	A	0.384	14	0.064	0.896	15	0.068	1.018	4	0.092	0.368
	Support Equipment Sets	A	0.029	5	0.018	0.090						
	1st System Install Kit	A	0.314									
	Ground Control Station / Data Terminals	A		2	2.340	4.679				1	2.100	2.100
	Portable Control Station (PCS)	A	3.000									
	-Launch & Recovery Data Terminal	A										
	MIAG/MAIS/Data Links	A	1.750	8	0.303	2.420	12	0.282	3.385	3	0.303	0.910
	TCDL	A								27	0.100	2.700
	Unit Support Kit	A								1	0.309	0.309
PN830	Production Engineering		1.711			0.468			0.268			0.394
PN800	Integrated Logistics Support		0.200			0.094			0.095			0.275
TOTAL			18.871			12.747			4.938			7.056

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE <b>February 2006</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy B.A.4</b>					C. P-1 ITEM NOMENCLATURE <b>422200 PIONEER PROGRAM</b>				SUBHEAD <b>J4PN</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW ?	DATE REVISIONS AVAILABLE
<u>FY 2004</u>										
Engines Install	7	0.055	NAVAIR	4/04	Fixed Price	PUI, Hunt Valley, MD	12/04	3/06	YES	
Support Equipment	1	0.029	NAVAIR	4/04	Fixed Price	PUI, Hunt Valley, MD	12/04	3/06	YES	
Portable Control Station	4	0.750	NAVAIR	12-03	Fixed Price	PUI, Hunt Valley, MD	2/04	5/06	YES	
MIAG/MAIS/Data Link	8	0.219	NAVAIR	4/04	Fixed Price	PUI, Hunt Valley, MD	12/04	5/06	YES	
<u>FY2005</u>										
Payloads	15	0.273	NAVAIR	5/05	Fixed Price	PUI, Hunt Valley, MD	5/05	7/05	YES	
Engines Install	14	0.064	NAVAIR	11/04	Fixed Price	PUI, Hunt Valley, MD	12/04	3/06	YES	
Support Equipment	5	0.018	NAVAIR	11/04	Fixed Price	PUI, Hunt Valley, MD	12/04	3/06	YES	
GCS / Ground Data Terminals	2	2.340	NAVAIR	2/05	Fixed Price	PUI, Hunt Valley, MD	8/05	8/06	YES	
MIAG/MAIS/Data Link	8	0.303	NAVAIR	2/05	Fixed Price	PUI, Hunt Valley, MD	8/05	8/06	YES	
<u>FY2006</u>										
IFF(Transponders)	20	0.009	NAVAIR	11/05	Fixed Price	PUI, Hunt Valley, MD	1/06	1/07	YES	
Engines Install	15	0.068	NAVAIR	11/05	Fixed Price	PUI, Hunt Valley, MD	1/06	1/07	YES	
MIAG/MAIS/Data Link	12	0.282	NAVAIR	11/05	Fixed Price	PUI, Hunt Valley, MD	1/06	1/07	YES	
<u>FY2007</u>										
Engines Install	4	0.092	NAVAIR	11/06	Fixed Price	PUI, Hunt Valley, MD	1/07	1/08	YES	
GCS / Ground Data Terminals	1	2.100	NAVAIR	11/06	Fixed Price	PUI, Hunt Valley, MD	1/07	1/08	YES	
MIAG/MAIS/Data Link	3	0.303	NAVAIR	11/06	Fixed Price	PUI, Hunt Valley, MD	1/07	1/08	YES	
TCDL	27	0.100	NAVAIR	11/06	Fixed Price	PUI, Hunt Valley, MD	1/07	1/08	YES	
Unit Support Kit	1	0.309	NAVAIR	11/06	Fixed Price	PUI, Hunt Valley, MD	1/07	1/08	YES	
D. REMARKS										

CLASSIFICATION:

**UNCLASSIFIED****BUDGET ITEM JUSTIFICATION SHEET****P-40**

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

**Weapons Procurement, Navy / BA-4**

P-1 ITEM NOMENCLATURE

**Cruiser Modernizatoin Program/ BLI 4223**

Program Element for Code B Items:

Other Related Program Elements

**0604307N, 0604567N, 0204221N, 0204162N**

	Prior Years	ID Code		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY	0			0	0	0	1	2	2	3	14	22
COST (In Millions)	9.1			0.0	5.4	18.5	23.4	45.2	52.5	54.3	186.5	394.9
SPARES COST (In Millions)	0.0			0.0	0.2	0.5	0.3	0.2	0.3	0.3	CONT	CONT

Modernized CG47 Class ships will be able to operate offensively and defensively, independently or as units of Carrier Battle Groups and Surface Action Groups, in support of Underway Replenishment Groups and the Marine Amphibious Task Forces in multithreat environments that include air, surface and subsurface threats. These ships will respond to Low Intensity Conflict/Coastal and Littoral Offshore Warfare (LIC/CALOW) scenarios as well as open ocean conflict scenarios, providing and augmenting power projection and forward presence. In addition, these ships will conduct Air Dominance, Land Attack and Force Protection missions.

CC001- Provides Close In Weapon System (CIWS-1B) Upgrade for CG Modernization Availability including equipment procurement, non-recurring and recurring equipment engineering, equipment integration, and Integrated Logistics Support (ILS).

CC002- Provides MK 45 Gun Mounts for all CG Modernization Availabilities including equipment procurement, non-recurring and recurring equipment engineering, equipment integration, and ILS.

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System CG47 Class Cruiser Modernizaton											DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-4: CG47 Class Cruiser Modernizaton Program				ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD Cruiser Modernizaton Program/422300/14CC										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			Prior Years				FY 2005			FY 2006			FY 2007			
			Total Cost				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
CC001	CIWS 1B Upgrade		9,086					0	0	0	0	0	0	0	0	0
CC002	MK45 Gun Mounts		0					0	0	0	1	5,357	5,357	2	9,235	18,470

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CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System <b>CG47 Class Cruiser Modernizaton</b>		A. DATE February 2006			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-4: CG47 Class Cruiser Modernizaton Program</b>					C. P-1 ITEM NOMENCLATURE <b>Cruiser Modernizaton Program/422300/14CC</b>				SUBHEAD <b>14CC</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b><u>Fiscal Year 2005</u></b>										
<b><u>CC001</u></b>										
CIWS 1B Upgrade	0	0								
<b><u>CC002</u></b>										
MK45 Gun Mounts	0	0								
<b><u>Fiscal Year 2006</u></b>										
<b><u>CC001</u></b>										
CIWS 1B Upgrade	0	0								
<b><u>CC002</u></b>										
MK45 Gun Mounts	1	5,357	NAVSEA	Nov-05	FFP	UDLP, Louisville, KY/Minneapolis, MN	Apr-06	Mar-08	Yes	
<b><u>Fiscal Year 2007</u></b>										
<b><u>CC001</u></b>										
CIWS 1B Upgrade	0	0								
<b><u>CC002</u></b>										
MK45 Gun Mounts	2	9,235	NAVSEA	Nov-06	FFP	UDLP, Louisville, KY/Minneapolis, MN	Dec-06	Dec-08	Yes	
D. REMARKS										

**UNCLASSIFIED**



CLASSIFICATION: **UNCLASSIFIED**

February 2006

P3A

INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED: MK45 GUN MOUNTSTYPE MODIFICATION: SHIPALTMODIFICATION TITLE: MK 34 Gun Weapon System Upgrade**DESCRIPTION/JUSTIFICATION:**

Provides upgraded 5/62 gun mounts to meet Cruiser Modernization requirements.

**DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:**

	<u>FY 2004 &amp; Prior</u>				<u>FY 2005</u>		<u>FY 2006</u>		<u>FY 2007</u>		<u>FY 2008</u>		<u>FY 2009</u>		<u>FY 2010</u>		<u>FY 2011</u>		<u>TC</u>		<u>TOTAL</u>	
	<u>QTY</u>	<u>\$</u>			<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>
<b><u>FINANCIAL PLAN (IN MILLIONS)</u></b>																						
<b><u>RDT&amp;E</u></b>																						0.0
<b><u>PROCUREMENT</u></b>																						
INSTALLATION KITS																						0.0
INSTALLATION KITS - UNIT COST																						0.0
INSTALLATION KITS NONRECURRING																						0.0
EQUIPMENT	0	0.0			0	0.0	1	5.4	2	18.5	2	23.4	3	45.2	3	52.5	3	54.3	8	186.5	22	385.8
EQUIPMENT NONRECURRING																						0.0
ENGINEERING CHANGE ORDERS																						0.0
DATA																						0.0
TRAINING EQUIPMENT																						0.0
SUPPORT EQUIPMENT																						0.0
OTHER																						0.0
OTHER																						0.0
OTHER																						0.0
INTERIM CONTRACTOR SUPPORT																						0.0
*INSTALL COST																						0.0
<b>TOTAL PROCUREMENT</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>5.4</b>	<b>2</b>	<b>18.5</b>	<b>2</b>	<b>23.4</b>	<b>3</b>	<b>45.2</b>	<b>3</b>	<b>52.5</b>	<b>3</b>	<b>54.3</b>	<b>8</b>	<b>186.5</b>	<b>22</b>	<b>385.8</b>

\*Installation of MK45 Gun Mounts will be funded with OPN (BLI 096000) as an integrated system installation along with gun fire control and other MK34 Gun Weapons Systems components that are funded in OPN.

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BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: <b>February 2006</b>				
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-4: Other Weapons</b>							P-1 ITEM NOMENCLATURE <b>Airborne Mine Neutralization System/422500/74AM</b>					
Program Element for Code B Items: <b>0604373N Airborne Mine Countermeasures/0603502N Surface MCM</b>							Other Related Program Elements <b>0204302N</b>					
	ID Code	Prior Years		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total
QUANTITY												
COST (In Millions)	B	0.7		\$0.000	\$1.495	\$3.151	\$6.538	\$21.126	\$42.915	\$37.767	CONT.	CONT.
SPARES COST (In Millions)				\$0.000	\$0.307	\$0.993	\$1.012	\$0.060	\$0.055	\$0.009	CONT.	CONT.
<p>PROGRAM DESCRIPTION/JUSTIFICATION:</p> <p>Airborne Mine Countermeasures (AMCM) Equipment is currently used by MH-53E helicopters to counter the threat of sea mines. The MH-60S helicopter will be adapted for the AMCM mission in support of the development of an Organic Fleet AMCM program. The equipment is divided into two broad categories -- minesweeping and minehunting. (1) Minesweeping is performed by mechanical or influence sweeps. In mechanical sweeping, the mine mooring is severed by the sweep gear allowing the mine to float to the surface where it is destroyed. In influence sweeping, a magnetic or acoustic field which simulates the magnetic/acoustic signature of a ship is introduced into the water. This field causes the mine mechanism to actuate. (2) In mine hunting, the object is to actually locate and classify mine like objects (usually by means of high resolution sonar) and mark or neutralize mines using explosive devices. AMCM squadrons currently have mechanical, magnetic, and acoustic sweeping capabilities, and mine surveillance and marking capabilities. Their mission is to locate, classify and neutralize moored and bottom mines.</p> <p>Airborne Mine Neutralization System (AMNS) is composed of the following major subsystems and components:  <u>MH-53E</u>: (a) Operator Control Console; (b) Winch Mod Kit; (c) In water assembly; (d) Neutralizer; (e) Launched stowage assembly; (f) Davit Sheave assembly; (g) Software</p> <p><u>MH-60S</u>: (a) Launched Handling Sub-system; (b) Neutralizer Sub-system; (c) Software</p> <p>AMNS procurements will be funded by: OPN for the AMNS combat system. OPN/WPN for AMNS neutralizer.</p> <p>Rapid Airborne Mine Clearance System (RAMICS) MIW program will satisfy the U.S. Navy's need for rapid mine clearance capability required to neutralize near-surface and surface (floating) moored sea mines. RAMICS will use geo-location data provided by other minehunting and mine reconnaissance systems, use a laser system to reacquire targets and to direct the fire of supercavitating projectiles that will render the mines inoperable. RAMICS includes the following major subsystems and components:  (a) Gun Subsystem; (b) MK258 Mod 1 ammunition; (c) Targeting Sensor Subsystem; (d) Fire Control Subsystem; (e) Software</p> <p>The system will be deployed from the MH-60S helicopter and will provide organic airborne mine defense for Carrier Strike Groups (CSG) and Expeditionary Strike Groups (ESG). This capability will be of critical importance in littoral zones, confined straits, choke points, and the Amphibious Objective area (AOA).</p> <p>RAMICS procurements (begins in FY09) will be funded by: WPN for the RAMICS combat system. PANMC for RAMICS projectile ammunition program.</p> <p>Expendable Mine Neutralization System (EMNS) (procurement begins in FY08) is a mine identification and neutralization system for support of mine clearance operations from the MCM-1 Avenger Class ship(s) for both bottom and moored mines. It will replace the aging and maintenance intensive AN/SLQ-48 Mine Neutralization System (MNS). EMNS will provide the MCM ships with improved reconnaissance capability, positive identification of the mine threat, reduced neutralization mission times, and reduced maintenance in both time and required spares.</p>												

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System			<b>A. DATE</b> <b>February 2006</b>		
<b>B. APPROPRIATION/BUDGET ACTIVITY</b> <b>Weapons Procurement, Navy</b> <b>BA-4: Other Weapons</b>					<b>C. P-1 ITEM NOMENCLATURE</b> <b>Airborne Mine Neutralization System</b> <b>BLI 422500</b>				<b>74AM</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>FISCAL YEAR (05)</b>										
<b>FISCAL YEAR (06)</b> AMNS - AM065	30	49.83	NAVSEA	10/06	OPTION	RAYTHEON, PORTSMOUTH, RI	06/07	06/08	YES	
<b>FISCAL YEAR (07)</b> AMNS - AM065	65	48.48	NAVSEA	10/06	OPTION	RAYTHEON, PORTSMOUTH, RI	06/07	06/08	YES	
<b>D. REMARKS</b>										